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The Agricultural Emergency in Iowa

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The Agricultural Emergency in Iowa

By the
STAFF IN ECONOMICS
at
IOWA STATE COLLEGE

REPRINTS of Ten Articles, Originally Published as Circulars of the Iowa Agricultural Experiment Station, Dealing With the Iowa Agricultural Situation in 1932 and 1933

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PREFACE

In the fall of 1932 the condition of agriculture became acute. The prices of farm products fell to disastrously low levels. On Iowa farms, hogs declined to $3.00 a hundred pounds, and less; corn fell to 10 or 12 cents a bushel; and every indication was that prices would continue at those ruinously low levels for some time to come.

Payment of debts, taxes and running expenses became almost impossible. A rising tide of farm mortgage foreclosures, tax delinquencies and bank failures spread over the country and left disaster and demoralization in its wake. The ordinary problems of farm operation shrank to insignificance by comparison with the overwhelming problem of shriveled farm income.

Accordingly, most of the agricultural economics research staff at Iowa State College suspended work on their ordinary current research projects, and turned to a special study of the emergency problems forced upon agriculture by the world depression.

The results of these special studies were published currently in a series of circulars dealing in simple language with the somewhat complex economic situation. The foreword to the first circular stated:

"The first necessity is to clarify the situation with a clear statement of the facts. Even with all of the facts before us, even if we could lay them out like checker men on a board so that we could see them all and the relations of each to all of the others, we might not all be able to agree on measures that should be taken. But we should surely be able to weed out many of the poor ideas and concentrate on some of the good ones. Many solutions have been proposed. All of them should be examined, and their possibilities considered."

The first circular stated the position of agriculture as it stood in December, 1932. This publication was followed by another setting forth the causes of the emergency. Then came a circular dealing with the domestic allotment plan. Other circulars, timed in so far as possible to appear when public interest was high, then dealt successively with the mortgage situation, the prospects for monetary inflation, the tax situation, and the effect of tariffs upon agriculture in the Middle West.

They were written by members of the Agricultural Economics staff and published as Iowa Agricultural Experiment Station circulars.

In all, ten circulars were printed. They were given newspaper and radio publicity and, being timely and easily read, met with wide popular approval. Fifteen thousand copies of each circular were printed. Nearly all of these have been distributed, mostly in response to requests. Favorable comments were received from all quarters, especially from the schools.

* * * * *

Time passed. By early summer of 1933, many remedial measures for rescuing the country had been passed. Recovery set in. Many aspects of the situation changed. The circulars, which were written during the trough of the depression, began to appear on superficial inspection to be passing out of date. This of course was natural, and was expected when the circulars were written.

On closer inspection, however, an unexpected feature of the circulars emerged. The principles laid down in the circulars retained their validity and pertinence, even though the immediate situation had changed. The circulars possessed a more durable value than had been anticipated.

The original supply of circulars, however, was rapidly becoming exhausted. It seemed highly advisable to put them up in some permanent form commensurate with their more permanent usefulness. Accordingly it was decided to bring them together and publish them as one volume. The present volume is the result.

In this volume the circulars have been left substantially unchanged, in their original form. Some minor errors and omissions have been rectified, and in a few cases, introductions have been modified so that the material in the circulars would read easily as connected chapters in a book. Except for these changes, the circulars remain the same as they were in their original issue.

G. S. S.

Iowa State College.
July, 1933.

CONTENTS

THE AUTHORS

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Dr. A. G. Black, head of the Iowa State College Department of Economics and chief of the agricultural economics section of the Iowa Agricultural Experiment Station, was the guiding force for the original series of circulars. Dr. Black is a graduate of the University of Illinois and has master's and doctor's degrees from the University of Minnesota. Before coming to Iowa State College in 1929, he was assistant professor of agricultural economics at the University of Minnesota. He is joint author (with J. D. Black, of Harvard) of "Production Organization."

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These authors wish to express their appreciation of the very helpful advice and assistance given by Mr. Blair Converse and Mr. Fred Ferguson, of the Technical Journalism Department at Iowa State College, in the preparation of the original circulars and the present volume.

CHAPTER ONE—NOVEMBER, 1932

The Crisis in the Fall of 1932

By A. G. Black

The State of Iowa this fall is harvesting the largest crop of corn in her history. There is imminent danger that she will also harvest the biggest crop of farm mortgage foreclosures, lost equities, and ruined farmers that the state has ever known.

Nature has never treated the farmer more generously, yet our economic system could hardly treat him worse. Hogs now (November, 1932) are selling for $3.00 per hundred; beef cattle, $5.00; corn, 10 cents a bushel; oats, 7 cents; butterfat, 20 cents a pound. The things that farmers produce are all selling at one-half or one-third of their 1922-1929 average prices. On the other hand, although some of the goods farmers buy have come down in price, most of the things they have to pay out money for have come down relatively little. Interest and principal on old debts remain the same. The average farm mortgage for mortgaged farms still runs at $65.00 an acre.[1] Taxes average $1.50 an acre[2]—down a little. Freight rates are practically unchanged—slightly lower in some cases, slightly higher in others. The index of machinery prices stands at 154 (the 1910-1914 average = 100)[3], and so on down the list.

The official figures of the United States Department of Agriculture show that the index of the prices of farm products has declined from 138 in 1929 to 56 in October, 1932.[4] The index of the things farmers buy declined from 155 to 107. That is, the purchasing power of the farmer's products now is only 52 percent of pre-war; the farmer's capacity to pay has been cut in half. When he takes a load of hogs or corn to town and sells it to meet his running expenses, the money he receives for the load will go only half as far as it used to go.

But these figures understate the situation. The index of the things farmers buy includes the goods used in living and in production, but does not include rents, insurance, taxes or payments on land or other debts. These all remain close to 150 percent of the pre-war, the same as they were a few years ago. With these things included, the average farmer's pur-

chasing power, instead of being reduced to 52, actually is reduced to 40 or 45 percent of pre-war.

Low Prices and Low Incomes

The decline in the prices of farm products is shown in table I.[5] The average farm prices of Iowa's principal agricultural products for the first 10 months of 1932 are compared with the average prices for 1927, 1928 and 1929. During these three years, as the table shows, the indexes of the prices of Iowa farm products ranged between 140 and 147. Since then the index has fallen to less than 50; the index number for October, 1932, is 49, only three points above the previous low reached in 1896.

The effect of these low prices is shown in the financial reports of a group of 650 farmers who have been keeping records of their incomes and expenses for several years, in cooperation with the Agricultural Economics Department of Iowa State College. The average net income for this group in 1929 was $2,774[6] (part of this income represents income on the owner-capital invested in the farm; the rest is the owner's wages for his year's work). For 1930, the average income figure had fallen to $763.[7] The 1931 figure fell below zero; it was —$818. The operator got less than nothing for his labor and money invested in the farm. The 1932 income figure will probably be lower than the 1931 figure.

TABLE I. AVERAGE IOWA PRICES OF PRINCIPAL AGRICULTURAL PRODUCTS AT THE FARM

Products	1927	1928	1929	1932 (First 10 months)
Hogs	$ 9.49	$ 8.77	$ 9.50	$ 3.37
Cattle	8.92	10.93	10.81	5.07
Sheep	6.57	7.06	6.72	2.11
Corn	.74	.82	.78	.25
Oats	.41	.45	.39	.17
Wheat	1.22	1.14	1.04	.39
Hay	13.69	12.07	11.63	8.09
Butter	.44	.47	.46	.20
Eggs	.23	.28	.30	.12
Poultry	.18	.195	.205	.105
Index number	140	145	147	57

These low incomes have had a disastrous effect on land values. The value of Iowa farm land has been declining steadily ever since 1920, but the decline was slowly being ar-

rested a few years back; it looked then as if Iowa land values were going to stabilize at about $146 an acre.[8] Since that time, land values have declined further. From 1931 to 1932 they went through the most rapid decline in history. The average figure on March 1, 1932, was $92 an acre. This is only 80 percent of the *pre-war* values. Many farms would now sell for less than the mortgages on them. In many cases the decline in their values has exceeded all the payments made since the farm was purchased.

The great reduction in farm incomes and farm land values and the general decline in the value of other bank assets has undermined the financial structure of country banks to an alarming extent. The number of bank suspensions during the post-war depression 10 years ago was high, but the number during the present depression is much higher. The number in 1930 was one-third higher than the previous record, established in 1926; the number in 1931 was more than twice as high as the 1926 figure.[9] Iowa led the nation in bank suspensions for the period from 1921 to 1929 with a total of 457.[10] In 1931, Illinois took first place with a total of 238, Iowa running second with a total of 208. During the present year, the situation has distinctly improved. The peak in bank suspensions seems to have been passed. Only four Iowa banks closed their doors in September, and only three in October.[11] A great deal of this improvement can be attributed to the activities of the Reconstruction Finance Corporation, which has brought a new element of strength into the banking situation.

Nationwide Problem

Business in general is sympathetic with agriculture, but many business men take the viewpoint that after all, the farmer's troubles are the farmer's troubles, not theirs. The farm situation, they say, is the farmer's worry, not the business man's; he has plenty of his own.

It is the business man's worry, however, as well as the farmer's. When the farmer's income is cut in half, after he has paid his taxes and interest, he has very little left to spend for goods. The gross farm income for the United States has fallen from 12 billion dollars in 1929 to 6.9 billion in 1931;

the estimate for 1932 is 5 billion.[12] After allowances are made for the lower value of goods raised *and consumed* on the farm, farmers spent about 6.5 billion dollars less in 1932 than they did in 1929. The market for several billion dollars in goods has disappeared.

Coming closer home, we find that the gross farm income of the State of Iowa, which averaged 700 million dollars from 1924 to 1928, in 1931 fell to 400 million dollars.[13] Iowa farmers thus spent about 250 million dollars less in 1931 than formerly. The 1932 income will be only about 270 million dollars;[14] Iowa farmers will spend about 350 million less in 1932 than in 1929. These declines in the purchasing power of farmers are one reason why the business man has his worries, and it is a reason why anything that he does to help the farmer will indirectly help himself.

How long are the present low prices for farm products likely to last? Nobody can speak with certainty, but statisticians do not expect material improvement in livestock prices during the next 12 months. The present low price of corn is due partly to the large United States corn crop this year; but if the corn crop were no larger than average, the Iowa price per bushel would be only between 5 and 10 cents higher than it is at present.[15] Recovery in the prices of farm products is waiting on business recovery, and even after that takes place, the prices of agricultural products are not expected to improve immediately. It takes some time for agriculture to recover from the effects of a full fledged business depression.

High Fixed Charges

Low incomes are only a part of the farmer's troubles. If the farmer had to meet only current running expenses, he could cut them to the bone and manage somehow. Unfortunately, the situation is not so simple; most farmers have fixed charges as well as current expenses to meet. It is these fixed charges that are causing most of the trouble.

Prices have been low before. Thirty-six years ago, in December, 1896, the average farm price of corn in Story County was 13 cents a bushel. For hogs, it was $2.98 a hundred.[16] These prices are nearly the same as they are at the present time.

But the debt situation was vastly different then. The average mortgage debt per mortgaged acre in Story County in 1896 was $15.99;[17] last December it stood at $86.50. The debt now is five times as large as it was in 1896. The dollar has increased in value during the last two years and prices have fallen generally, but this has no effect on debts outstanding. They remain the same size as before. The price of farm products may fall to one-half or one-third, but the principal and interest on mortgages and other debts remain unchanged. The stream of income flowing into the farmer's hands is reduced 60 percent, but the outflow of his heaviest cash expenses remains as large as ever.

Obviously this is an impossible situation. In many cases the result is that the farmer loses not only his farm and home but the lifetime savings he has already put into it. In six representative Iowa counties, a total of 257 farms were sold at foreclosure sale in the first nine months of 1932.[18] This represents a large increase over 1930 when only 90 farms were thus sold. In Story County, the number of farm mortgages foreclosed during the first nine months of 1932 was three times as high as the highest number of foreclosures in any previous comparable period during the last 80 years.

In ordinary times, the farmers whose mortgages are foreclosed are generally men who have failed because of personal reasons—because of lack of capital, inaptitude for farming, poor managerial ability, insufficient training or experience, poor health, and so forth. In most cases they are "marginal farmers." But the present tide of mortgage foreclosures is different; in its impersonal sweep, it is taking all classes of farmers, good, bad and indifferent, and for reasons beyond their control. Many of the farmers who are being foreclosed now are numbered among our most efficient farm operators. They are men of initiative and enterprise, whose very excellence has brought them to their downfall. They are the men whose good qualities have enabled them to climb up the agricultural ladder to the top rung of farm ownership; and now they are much worse off than they would have been if they had never attempted to own a farm of their own.

The situation affects nearly three-fifths of total farm population of Iowa, for 58 percent of Iowa's farms are mortgaged.[19] It has a demoralizing effect on renters as well. Many renters now are signing leases calling for rental payments of $6 or $7 an acre,[20] knowing full well that there is no prospect of their being able to pay it at the end of the year. Why should they argue about the rent? They cannot pay it in any case, they say; and after all, the landlord can not do any more than take all that there is left after the renter has kept his family together and maintained his livestock through the year.

The standard of living of owners and renters alike is being reduced. State medical conventions report the alarming extent to which dental and other medical work is being neglected to the detriment of the present and future health of farm families. Country churches are becoming involved in financial difficulties, and social and humanizing activities of all kinds are being severely curtailed.

What Can Be Done?

The situation as it stands is desperate. At existing prices, the majority of farmers cannot pay capital and interest charges on their debts. Positive action is necessary, or thousands of farmers are going to be swept over the edge into foreclosure and financial ruin.

But what can be done to meet the situation? So many different solutions are being offered that they darken counsel. Some would have us put on higher tariffs and protect the home market; others would have us lower tariffs and revive international trade. Some recommend inflation to increase prices and give us an "honest dollar"; others claim that only by avoiding inflation can we preserve the integrity of our monetary and financial structure and save ourselves from utter chaos. And some hold that the economic forces at work are so blind and uncontrollable that we can do nothing; they say that we cannot defy immutable economic laws, and that the only thing to do is to let things run their course.

This last point of view is out of harmony with every tenet of human progress. This is not an age when men stand helpless before natural forces, however blind or immutable. We

do not bow down before plague and pestilence and "let nature take its course"; instead we build sanitary water supply and drainage systems, clean up areas of infection and stamp out the disease. We do not stand idly by and let the floods of the lower Mississippi ruin the surrounding farming country; we build levees to hold the river back. We do not freeze when inclement weather strikes us, saying that those who cannot survive are unfit and should perish; we manufacture clothing and build comfortable homes to protect ourselves. We do not grow native varieties of corn on our farms; we breed up new high producing varieties which vastly outyield the old. The march of science is the story of men overcoming natural forces —not defying them, but pitting other natural forces successfully against them to make them work for the benefit of mankind.

Similarly in the realm of economics. Economic forces are no more "immutable" than natural forces are; they can not be defied, but they can be met and controlled by proper application of other economic forces. The only difference is that economic phenomena are more difficult to understand and control than natural phenomena are; their causes are numerous, ramifying into psychology as well as into natural science; and they work in and through a tangle of complex interrelationships.

The difficulty of economic problems hinders but it should not preclude working through to their solution. The immediate problem in the present upheaval is first to discern clearly the destructive economic forces that are at work, and then to work out effective measures to combat them. This requires that we try to discover the strong and weak points of remedies that have been proposed, work out new solutions whenever necessary, map out a program of action and then put it into effect.

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8. U. S. Dept. Agr. data, summarized by Mr. Peck.
9. Federal Reserve Bulletin, February, 1932, p. 132.
10. Federal Reserve Board, Annual Reports, 1924 to 1931.
11. Federal Reserve Bulletin, October, 1932, p. 672, and November, 1932, p. 722.
12. Preliminary copy. Report on the Agricultural Situation, Special Committee of the Association of Land Grant Colleges, p. 6, 1932.
13. Iowa State College, Agricultural Economics Department data.
14. The average of the monthly Iowa farm products price indexes for the first nine months of 1932 is 58.3. This is 67.8 percent of the 1931 index, which was 86. Finally, 67.8 percent of 400 million is 271 million.
15. The slope of the post-war line of relationship between Iowa farm corn values, December 1, and United States corn production, when both variables are expressed as percentages of their mean values, is —2.14. The 1932 crop is nearly 10 percent larger than the 1924-1928 average. The Iowa farm price should then be roughly 20 percent below average. But what is average? From 1922 to 1929 it was 68 cents; in 1931 it was 32 cents; this year it will be in the neighborhood of 10 cents. During the next few years it may average between 25 cents and 50 cents; 20 percent of 25 cents is 5 cents, and 20 percent of 50 cents is 10 cents.
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CHAPTER TWO—DECEMBER, 1932

The Causes of the Emergency

By Geoffrey Shepherd

What are the causes of the present emergency in agriculture? We need to know, because a clear realization of the way we got into this trouble should help us to plan the way out. This depression is not a catastrophe of nature, like an earthquake or a tornado. It is a man-made affair, the result of our own actions and policies. We did not do it intentionally, but somehow in fumbling with our economic machinery we pulled the wrong levers and got ourselves into trouble. If we can go back and discover what we did that was wrong, we will be in a better position to get the machinery going again. The way into trouble should give us some idea of the way out.

If the cause was overproduction, we ought to know it. If it was Wall Street, we ought to know that. If it was an unstable monetary and banking system, we should get our ideas clear as to the defects in that system and prepare to remedy them. If it was because we got involved in European financial difficulties, or if there has been something wrong with our trade policies—whatever the reason or reasons, the sooner we chart the obscure paths through which we got into this depression, the sonner shall we find the way out.

The Great Decline in the General Commodity Price Level

The immediate cause of the agricultural emergency is the devastating decline in the general commodity price level that has taken place during the last three years. Measured from 1925 to 1929 average levels, the general level of wholesale commodity prices in the United States has fallen 34 percent, or one-third.[1] Similar declines have taken place in the other countries of the world.

A reduction in the general price level of this magnitude bears down with especial force upon agriculture, for two reasons.

Costs of Distribution Lag

The first reason is that the costs of distribution from producer to consumer do not decline as rapidly as wholesale commodity prices. Manufacturers', processors' and retailers' wages and rent always fall more slowly than commodity prices; freight rates change very slowly (they have remained practically unchanged since the present depression began). Changes in the cost of distribution lag so much behind changes in commodity prices that the heaviest part of the burden of a decline in the general price level is passed back to the producer.

A simple illustration of this is the way declines in hog prices at the central markets are passed back to the producer. It costs about 75 cents a hundred pounds (freight and handling charges) to ship hogs from central Iowa to Chicago. When the price at Chicago declines from $4.00 a hundred to $3.00, the farm price in Iowa declines by the same amount, from $3.25 to $2.25. The reduction in the Chicago price is one-fourth, while the reduction in the Iowa farm price is nearly one-third. In this case the full burden of the price decline is passed back to the producer.

Agricultural Production Continues at Full Capacity

There is a second reason why a major decline in the general commodity price level hits agriculture hard. A great price decline generally brings on a business depression, and during a business depression the general demand for goods and services diminishes.

Many industries react promptly to this situation; they cut down their production, in line with the reduction in demand. The steel industry, for example, has reduced its present output to about 20 percent of its full capacity. In the automobile industry production has been cut to about one-third.[2] Industrial production for the United States as a whole has been cut more than a third. Manufacturers who follow this policy generally have to accept somewhat lower prices, and their net income usually declines still more than their prices. But by reducing production they avert a large part of the effect of reduced demand, passing a major portion of it on to the shoulders of the employees that they discharge.

This policy is very effective in well organized industries. The clearest example is the steel industry, which, by cutting its production schedule heavily, has been able to maintain its price schedule almost intact. The price of steel rails has been $43 a ton for years; it has remained unchanged all through the present depression until two months ago, when it was reduced to $40. It is easy to imagine how low steel prices would have fallen had the steel industry kept operating at full capacity!

But that is exactly what agriculture has done. During the years 1926-1932 the total output of farm products in the United States has remained practically constant, at a level about 15 percent higher than during the years 1919-1921.[3] In the face of a reduction in demand, agriculture has continued to operate its plant at full capacity. This is the second reason why agricultural prices have declined so heavily during the past three years.

Changes Within Agriculture

There is a further consideration, though it is not connected with the depression. Changes have been taking place in the technique of agricultural production, and these changes have been slowly altering the outlines of the agricultural picture.

Some of these things have helped the United States farmer, some of them have hurt him. The increased use of tractors, trucks, combines and other large scale machinery has helped to the extent that it has reduced the costs of production on the farm. Yet these tractors and trucks have displaced many horses and mules; and as a result, a good-sized portion of the market for corn, oats and other feed grains has disappeared. This has correspondingly weakened the prices of these grains.

Whatever their net effect may be, these changes work slowly, and they are of small moment compared with the terrific decline in agricultural prices that has taken place during the past three years. This decline bears down with great severity upon farm operators, because the costs of running a farm—debt and interest charges, taxes, machinery costs and the multitude of small running expenses—have not come down in any corresponding measure with the prices of farm products. The farmer's *income* has been reduced 60 percent, but his *expenses* have been reduced

only about 20 percent.[4] The farmer is ground between the upper millstone of descending prices and the unyielding lower millstone of comparatively fixed costs.

WHY HAS THE GENERAL PRICE LEVEL DECLINED?

It is easy to say that the immediate cause of the present agricultural emergency is the great decline that has taken place in the general price level during the past three years. But that only raises another and more difficult question. What was it that made the general price level decline?

The answer to this question is full of controversial points, but the broad outlines can be blocked out in a few pages.

The root causes of the present depression and deflation of prices trace back to the World War.

Before the war, monetary conditions were comparatively stable, both within each nation and between the nations. The leading nations played the parts for which they were fitted, and these parts dovetailed with one another to make a well balanced whole.

The United States, for example, was the world's greatest debtor nation. That is, she paid huge amounts annually to other nations for interest on borrowed money, for tourist expenditures and for immigrant remittances abroad. She was also a great net exporter of goods. These two policies, her financial policy and her trade policy, fitted in well with each other, for her payments abroad were made in the form of her exports of goods.[5]

Great Britain, on the other hand, was the world's chief banker and creditor nation. Other nations paid her large amounts every year for interest on borrowed money and for shipping charges. Furthermore, she was a free-trade nation and received large net imports of goods. Here was another example of harmonious financial and trade policies.

Between the nations, equilibrium was maintained through the action of "the automatic gold flow mechanism." If one nation, for example, developed an export surplus of goods, services and loans abroad, this excess would cause that nation's exchange rates to rise, and gold would flow in until the exchanges were corrected. This inflow of gold would raise prices

in that nation and make it harder for her to sell her goods and services abroad and easier for other nations to sell to her. This would reduce her exports to a point where they would again be balanced by her imports. Gold flowed wherever needed to redress balances, and in flowing raised or lowered prices so that equilibrium was maintained.

Beneath the surface of this apparently smoothly working world, however, politico-economic forces—population growth, the ambitions of the different nations for control of the world's markets and productive resources, etc.—were exerting terriffic expansive pressure. The world was like a smoothly running steam engine, but the boiler pressure was so high that the machine was likely to blow up at any time. When the explosion finally took place in 1914, it threw the different parts of the machine out of relation with each other, and set up opposing forces which have led to a breakdown during the last three years.

The Effects of the War

Let us try to get a clear grasp of the nature of these opposing forces, set against each other as a result of the war explosion.

The belligerent nations could have financed the war either by monetary inflation or by heavy taxation. Disregarding the advice of economists, the United States, along with the other nations, chose inflation, and thereby sowed the seeds of our present trouble.

As a result of this policy of inflation, prices during the war roughly doubled. For four years, from 1917 to 1920, the general level of commodity prices at wholesale in the United States ranged between 175 and 225 percent of pre-war.

When peace was declared in 1919, our heavy expenditures for war purposes declined, but they were replaced for a time by heavy purchases by foreign nations who were recuperating from the destructive effects of the war. The war-time scale of production and prices continued for more than a year after the war had ended.

Then, in 1920, the war and post-war boom came to an end. Foreign nations ceased buying from abroad and began to build up their own industries; governments ceased floating their war

bonds, and the policy of cheap money was ended. Prices crashed, and a severe depression ensued.

The depression was severe, but it was comparatively brief. Within a year or two the country began to recover. Industry struggled to its feet again, and began to proceed, haltingly at first. Most of the price and debt maladjustments carrying over from the war inflation period were reduced, some by the expiration of contracts, others by default, others by voluntary agreement, and others by the gradual action of competition. But many maladjustments remained, and although industry was able to overcome her obstacles within a year or two, recovery in agriculture was slow.

The United States Changes from Debtor to Creditor

Prosperity returned to industry by 1923. The United States greatly improved the technique of mass production, thereby reducing the costs of industrial production, and embarked upon an aggressive policy of expanding its exports. Overriding the protest of economists, it also decided to raise its tariffs and keep out foreign manufactured goods. We were not alone in this; the movement was, with the exception of England, world-wide. But we were one of the worst sinners in this respect, for we were a large nation and had large world responsibilities.

Then, from 1924 on, a strange new influence began to make itself felt in the world. During the war, the European nations had borrowed enormous sums of money from the United States to finance their fighting forces. These foreign borrowings were so great that they reversed the debtor position of the United States. When the war was over, the United States emerged, not as the world's largest debtor, but as one of the world's leading creditors.

This change in the world position of the United States meant that she would be *receiving* huge payments every year instead of making them. These payments to the United States would have to be made in goods or services, or else in gold. Our tariff, raised higher in 1922, made it difficult for goods to enter. So gold flowed in instead. It flowed in so rapidly that the stocks of gold in this country increased from roughly 2 billion dollars in 1914 to 4 billion in 1923.[6]

It then became clear that the United States' new role as banker conflicted with her traditional role as a large exporter of goods. Her new financial policy ran counter to her established trade policy. For as a banker, she required huge payments to be made to her each year—nearly 200 million dollars annually in governmental war debts alone.[7] At first these payments could be made in gold. But there is only a limited supply of gold in the world, and sooner or later goods would have to flow in instead. The United States would have to become a net importer of goods. But that ran directly counter to her trade and tariff policy, which aimed to make the United States a large net exporter of goods.

Europe Pays Her Debts by Borrowing More

There was the situation, and it would quickly have brought about a deadlock in world affairs had not a new element suddenly entered the picture. European nations began to float huge issues of securities—stocks and bonds—in the United States. In other words, we in the United States started to lend vast sums abroad. We demanded that the European countries pay their debts, and pay them in gold, not goods. And when they could not pay us any longer, we loaned them the money to do it. We loaned them so much money that they were able to pay their debts and buy large quantities of goods from us as well. The amounts are shown in table II.

TABLE II. AMERICAN EXPORTS, IMPORTS AND FOREIGN LOANS[8]
In millions of dollars

	Exports	Imports	Excess of exports	New foreign securities sold in U. S.*
1922	$3,832	$3,113	$ 719	$ 630
1923	4,168	3,792	376	267
1924	4,591	3,610	981	1,047
1925	4,910	4,227	683	1,078
1926	4,808	4,431	377	1,145
1927	4,865	4,185	680	1,562
1928	5,128	4,091	1,037	1,319
1929	5,241	4,399	842	759
1930	3,843	3,061	782	1,010
1931	2,424	2,091	333	255
1932**	1,189	1,015	174	0

*I.e., new foreign loans.
**First nine months.

Our foreign loans were not part of the financial policy of the United States. They were independent transactions, made by business men and bankers as part of their ordinary investment activities. Foreign corporations sold bonds to finance their business, and we bought them in huge amounts. It was obvious that these loans could not continue indefinitely. But while they lasted they balanced the international books and financed a period of insecure but very exuberant prosperity in the United States.

The huge stocks of gold in this country would have given us a very high price level had not a good deal of the gold been "sterilized," sunk in the vaults of the Federal Reserve Banks, so that it could not exert its full effect on prices. This prevented the "gold flow mechanism" from working properly. Had we and France left it free to work, it would have redistributed the gold where it was needed in other countries. As it was, the majority of the world's gold piled up in the United States and France. Our price level evened out at about 50 percent higher than pre-war.

Similar price levels prevailed abroad, but for a different reason. Their stocks of gold were small; but this did not depress their prices, because their gold stocks were *so* small that the countries were forced to remain off the gold standard. Furthermore, our loans abroad helped to sustain foreign purchasing power and foreign price levels.

The Period of Prosperity

Gradually, industrial prosperity in the United States developed into a boom. Our indexes of industrial production rose above 1923-1925 levels by 8 percent, 12 percent and finally 19 percent. Installment buying became wide-spread, and speculation in the security markets developed on an amazing scale.

Throughout this period the commodity price level remained fairly even. After 1925, however, points of weakness began to develop. Gold stocks in the United States and France continued to grow. Economic nationalism ran rampant, not only among the leading nations of the world but also among the small new European nations set up by the Versailles peace treaty. Expenditures for competitive armaments mounted rap-

idly. Partly to restore sound monetary conditions, but also partly to build up a war chest of gold, nation after nation returned to the gold standard. Germany went on the gold basis in the fall of 1924; England and the Netherlands in April, 1925; Belgium, in October, 1926; Italy, December, 1927; and France, June, 1928.[9]

The return of these nations to the gold basis increased the demand for gold. This increase in the demand for gold began to increase the value of the yellow metal. An "increase in the value of gold" is the same thing as "a decrease in the (gold) value of goods;" that is, it is the same thing as a decline in prices. In the four-year period from early 1925 to early 1929, the level of prices abroad, in the countries that take the bulk of our farm-product exports, declined about 12 percent.[10]

Besides the general scramble for gold, there was an almost universal move in the direction of higher tariffs. Nations fought to protect their own producers from foreign competition by raising tariff barriers against imports. And many a national government, hard pressed to balance the budget, levied additional import duties in an attempt to increase its income.

Trouble was brewing in agriculture particularly. Wheat production was expanding rapidly in Canada and Argentina. Expansion in these countries subjected our wheat growers to the same ruthless competition that we gave European wheat growers two or three generations ago. After 1924, too, Russia loomed on the horizon with threats of further additions to the world's wheat supply.

Uncertainty Develops

Gradually, these shifts in production, combined with the changes being made in financial and trade policies, began to have their effect upon the markets of the world. Rising tariff barriers cut down the demand for goods. Our foreign loans began to slacken. Reduced demand led to a piling up of stocks of raw materials. These large stocks began to bear down on prices. These falling prices, in turn, led to more restrictive import policies and to further reduction in demand.

"By the end of 1928, mounting supplies of industrial goods in relation to limited monetary and credit facilities were endanger-

ing commodity price levels, and in 1929 that danger was made even more real as the tremendous absorption of more and more funds in the American speculative markets reduced our lending abroad, and as the lure of speculative profits dragged even foreign funds into the American stock markets. At that juncture, the end of 1928 and the beginning of 1929, European industrial conditions became vulnerable to the subsequent crash in world-wide speculation and the unsettling influences that the crash let loose.''[10]

It was not until 1929 that the truth seemed to become apparent. Only then did the world seem to grasp the fact that nations cannot sell without buying, nor repay loans indefinitely by simply borrowing more. The large stocks of goods began to cause concern, and industrial production began to slacken. This was a disturbing sign. Confidence gave way to caution. Previously, domestic demand had been overexpanded by installment buying, now it contracted as people turned from buying to saving. This contraction of demand caused production to contract still further. The stock market wavered and then crashed, feverish optimism turned into uncertainty and then into pessimism, and the depression began.

The Depression Begins

When depression begins, it feeds on itself to breed more depression.

"The interrelated developments, once the depression began, can be more clearly traced, and their influence on agriculture more clearly visualized. It is generally agreed that since the decline in 1929 there have been three distinct phases in the depression: The first embraced the two years up to the spring of 1931; it brought on a series of monetary disturbances which characterized the second period, from the middle of 1931 to the spring of 1932; the third is the current period characterized by the measures adopted to stem the financial debacle.

"The downward course of the depression during 1930 and 1931 led to a financial crisis. Debtor countries found it difficult to maintain satisfactory trade balances to meet their foreign obligations and to secure new loans upon which they had been dependent for several years. To protect their currencies in relation

to gold, these countries were forced to adopt exchange regulations to restrict gold exports. Doubt then arose as to the financial soundness of creditor countries, followed by runs on money markets. Great Britain, in September, 1931, was forced to abandon the gold standard. In quick succession other countries, covering about half the globe, followed its example. Creditor countries, chiefly the United States and France, unwilling either to loan more money or to import goods, attracted large quantities of gold from the rest of the world, bringing about a still greater 'maldistribution' of the world's gold supply.

"In the United States bank failures reached enormous proportions and led to hoarding by the frightened public. Investors also lost confidence in practically all forms of securities, the prices of which fell to unheard of levels, and the flotation of new securities practically ceased. Bank deposits were drawn down. Banks, fearing more runs, restricted credit, and commodity prices continued to fall. At the end of 1931, commodity prices at wholesale had returned to the pre-war level.

"The United States, in its effort to stem the tide of depression, by the summer of 1932 had made fundamental changes in banking, had legislated into existence new credit institutions with vast financial resources, and through the Federal Reserve System had supplied open market credit in very large volume. In the international field, the leading countries of the world were endeavoring to find a basis for cooperation in political and economic affairs, that would help stabilize financial conditions and restore the flow of trade.

"The developments of the past three years have resulted in a drastic decline in the demand for the products of our farms, both in this country and in foreign countries, but production, in the aggregate, has not been materially reduced. In some lines production has continued to be heavier than the markets will absorb even at ruinously low prices, and burdensome supplies have accumulated. Although the continuance of production at the pre-depression level has contributed to the great depths to which agricultural prices have fallen, the forces primarily responsible for the agricultural depression are found outside of the agricultural industry.

"In summary, the principal causes of the depression as it affects American agriculture may be listed as: (a) Monetary and

credit policies during and after the World War, including the increased demand for the world's limited supply of gold as many nations strove to return to gold as the basis for their currency after 1924; (b) over-expansion of production and productive capacity in many industries, with an accompanying increase in the volume of indebtedness; (c) the unparalleled orgy of speculation in securities; (d) the trend toward economic self-sufficiency, especially among European nations, which resulted in considerable degree from obligations to pay war debts and reparations, and from efforts to escape the effects of falling prices and which was manifested in trade barriers and import restrictions that retarded international trade and curtailed the foreign demand for our agricultural products.''[11]

SOURCES OF DATA

1. From an average of 143.2 from 1925 to 1929, inclusive, to 95 in September, 1932. The Agricultural Situation, November, 1932, p. 21.
2. The Annalist, Friday, November 25, 1932, p. 713.
3. Report of the Agricultural Situation, Special Committee, Association of Land-Grant Colleges, November 14-16, 1932, p. 3.
4. Op. cit., p. 16.
5. F. W. Taussig, Selected Readings in International Trade and Tariff Problems, 1921, pp. 196-198.
6. Annual Report of the Federal Reserve Board for 1931, p. 63.
7. The Balance of International Payments of the United States in 1930, U. S. Department of Commerce, Trade Information Bul. 761, p. 69.
8. Chase Economic Bulletin, No. 4, Vol. XII, Chase National Bank, New York, November 17, 1932, p. 11.
9. Farm Economics, Cornell University Bulletin, Feb., 1932, p. 1694.
10. Report cited in footnote 7, p. 13.
11. Report cited in footnote 7, pp. 14-15.

CHAPTER THREE—FEBRUARY, 1933

The Iowa Tax Situation

By John A. Hopkins, Jr.

IOWA'S INCREASED TAX BURDEN

Since the present business depression began in 1929 the tax bill of the Iowa farmer has become heavier each year. It is true that this increase in burden has been caused by a shrinkage in the farmer's income rather than by actually increasing tax bills. The added difficulty of paying taxes, however, has been as real as though the income had remained the same and the annual taxes had increased to far above the 1929 levies. Why have taxes not fallen along with prices of crops the farmer sells? How did they get to be so high in the first place? How far and how quickly can they be reduced? These questions are discussed by thousands of farmers and others in Iowa every day.

Since the founding of the state the total tax bill has grown at a rate greater than its population and in recent years at a rate greater than its wealth. The principal reason for this has been that from year to year new functions, new services have been assigned to the various governmental agencies. Each of these has involved a new outlay of public funds. These new services have rather generally been demanded by the citizens and have promoted the public welfare by providing better roads, better schools, the safeguarding of the public health and care of unfortunates.

Persons interested in the reduction of taxes frequently point to the year to year increase in public expenditures as evidence of lavish spending. This is often highly misleading. Suppose we take, for example, the expenses for the primary road system of Iowa. The first expenditures were made in 1919, according to the report of the State Highway Commission, and amounted to $741,000. In 1931 approximately $28,000,000 was spent for construction of primary roads, $3,362,000 for maintenance, $3,753,000 for interest on bonds and $1,600,000 for redemption of bonds. In considering this increase of approximately $35,000,000 it should be remembered that most of the construction expense is of the nature of a new capital investment. It should

also be remembered that before the development of the primary road system there was undoubtedly an even greater toll, per unit of traffic, paid to mud roads in the form of lost time, greater power expense and greater depreciation on vehicles.

Three Different Ways of Reducing Taxes

There appear to be three principal ways in which the public expenditures might be reduced. The first of these would be by discontinuing, or reducing, some of the services of government now performed. Suggestions for savings by this method should indicate specific services to discontinue, and should evaluate the services lost as well as the taxes saved. Such proposals should also consider the probable cost of reestablishing the same services, if that should be desired, after the emergency has passed. In some cases it might cost much more to reestablish a project than is saved by its temporary suspension.

The curtailing of road building or of the erection of new public buildings comes under the heading of reduction of services. In this case, however, the reduction takes place in future rather than present services. Pronounced reduction in the personnel of public offices also generally implies some reduction in services performed by these offices.

A second possible means of reducing public expenditures is by lowering salaries of public officials in accordance with the decline in the cost of living. There is a decided lag between wages and the prices of commodities. It would be desirable for wages to be adjusted more promptly than in the past, but this should be done when prices rise as well as when they fall.

A third way is by the elimination of waste and inefficiency. Some of this may come from the dropping of inefficient employees, but it is likely that even more might come from a reorganization of governmental machinery so that each necessary service may be performed at a minimum cost.

Under this same heading may be included the elimination of unnecessary duplication of effort. Economy can also be promoted by adjusting budgets promptly during periods of rapidly falling prices such as the present, when some services can be performed for less money than was required a year or two ago.

Likewise during periods of low interest rates, it may be possible to refund some bond issues, thereby reducing the interest payments on them.

It should be remembered that reduction of expenditures is not quite the same as reduction of taxes. To some extent it might be possible to reduce taxes by finding new sources of income other than from taxes. Some public services might be charged for directly, as by the selling of public documents, instead of distributing them gratis, by increasing tuition paid by out-of-district high school students, increasing tuition in the state colleges, obtaining endowments for such institutions, etc.

Government Organization Lags Behind the Times

The instrumentalities of government have a tendency to change more slowly than the demands that are made upon them. This is inevitably true. The legislature meets only once in two years and conditions may change materially in the interim. Also it takes a certain amount of time to secure the adoption of any measure providing for a new service or discontinuing a service that is no longer needed. Consequently an occasional thorough-going and businesslike reorganization of governmental agencies should accomplish a worthwhile saving.

Of course, there is no lack of interest in governmental economy. But it must be admitted that some items of public expenditure have received more attention than their importance merits, while others of greater magnitude are seldom mentioned at all. It is instructive to consider the great amount of attention given to the county appropriations to the County Improvement Associations or farm bureaus, which amounted in the aggregate to about $345,000 in 1931, and the very small attention given to the various public debts of the state, on which interest in the same year amounted to over $10,000,000 and for which the total costs including payments on principal come to about $20,000,000. This latter expense will be discussed later.

Comprehensive Figures on Expenditures Difficult to Obtain

It is a startling fact that there is no place where the total expenditures of the various administrative units of Iowa can be

ascertained.* Even further than this, it is not possible to get together such information for any particular year because there is no common fiscal year for the different administrations. The fiscal year for the state runs from July 1 to June 30, that for the county from Jan. 1 to Dec. 31. The Highway Commission, which is under state jurisdiction, has a fiscal year from Dec. 1 to Nov. 30; the public school system, which is most closely related to the county governments, uses the year July 1 to June 30; and the fiscal year of cities and towns runs from April 1 to March 31. It must be recognized that there are advantages in the present fiscal years to the schools and to the Highway Commission. Nevertheless, a common fiscal year is highly desirable and would certainly make it much easier to study the public expenditures of the state as a whole.

To this difficulty is added that of cumbersome and ambiguous accounting systems. It was not always possible to reconcile the sources and dispositions of funds. For instance, the treasurers of different counties placed some items in different accounts, either because they interpreted the account headings differently or bcause they were not sufficiently acquainted with the accounting system. Generally, if the county treasurer was in doubt, the item went into a catchall called "Miscellaneous."

An example of the difficulty encountered in getting complete and accurate data occurs with the share of gasoline tax collections which is remitted by the state to the county for use on secondary roads. According to the records of the state $11,727,559 gasoline tax was collected during the fiscal year July 1, 1930, to June 30, 1931. Of this sum $4,114,000 was remitted to

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*Data concerning the receipts and expenditures of the state departments were obtained from the office of the Auditor of State. A considerable part of the data in table III had already been tabulated by Mrs. E. Mae Sweany, statistician for the State Board of Assessment and Review. Data concerning the Primary Road System were obtained from the Annual Report of the State Highway Commission. Figures concerning county receipts and expenditures were obtained from the Office of the Auditor of State, except the figures on roads which came from the Highway Commission Report.

Information on the finances of the public school system of the state came from the report of the State Department of Public Instruction. The totals of outstanding indebtedness came from the Auditor of State. The detailed information on school and county bonds was obtained by a survey of 10 counties. This involved an examination of the records of bonds issued in the county auditors' offices and interviews with school superintendents and secretaries. Data on primary road bonds were furnished by the Highway Commission.

In compiling the information in this bulletin, valuable assistance was given by Fred Porter, acting auditor of state, and R. C. Williams, in charge of research for the State Department of Public Instruction, as well as by a large number of other state, county and school officials.

the counties. The counties' fiscal year, however, ran from Jan. 1 to Dec. 31, 1931, and for this period county treasurers reported that they had received from the state gas tax $3,819,000. Evidently some county treasurers had entered the gas tax in the "Miscellaneous" or some other account because, for the calendar year 1931, county engineers in their reports to the State Highway Commission reported that they had received from the county treasurers gasoline taxes amounting to $4,505,000. At the same time the "Motor Vehicle Fuel Fund Apportionment Certificates," in the records of the State Highway Commission, show that the counties' share of gasoline tax for the calendar year 1931 amounted to $4,490,000, and agreed with the $4,114,000 figure given above for the period July 1930, to June, 1931.

With conflicting figures from different sources and with fiscal years which do not correspond, it is, of course, impossible to make a strictly accurate summary for all administrative units combined. At times it was necessary to exercise considerable judgment in selecting figures which seemed most reasonable and most consistent with those from other sources. And at times it was necessary to adjust figures which were obviously erroneous.

RECEIPTS OF PRINCIPAL ADMINISTRATIVE UNITS

It is commonly believed that the general property tax is almost the sole source of income to the various Iowa units of administration. It is true that the general property tax is the principal source of public revenue and that it has been yielding around $100,000,000 per year. But other sources of income have been more important in the aggregate than is commonly realized.

Table III shows that when we add together the revenue from the property tax, tax on moneys and credits, auto license fees, gasoline tax, inheritance tax, cigarette tax, insurance tax, federal aid to roads and schools, income from fines, fees, sales, tuition, etc., the entire revenue of the various administrations of the state amounted in 1931 to approximately $145,000,000. The percentages coming from different sources are shown in fig. 1.

The farmer is most interested in the property tax. The amount of this tax levied for 1931 was approximately $97,000,000, which is about two-thirds of the total of the public revenues

shown in table III. This is the tax that is causing the greatest distress. Since farm earnings are so greatly reduced, the farm property holder is now paying out a disproportionately large share of his income for taxes.

The tax on motor fuel was the second largest source of public revenue. This yielded in 1931-32 about $11,760,000. Auto license fees were of almost equal importance and yielded $11,660,000. The tax on moneys and credits brought in $3,230,000. Next in importance came several more specialized taxes: the insurance tax, cigarette tax, inheritance tax and poll tax. These brought in all together about $4,000,000. The state received nearly $5,000,000 from federal aid to primary roads and there were many miscellaneous sources of income which yielded in the aggregate nearly $10,000,000. Thus sources of revenue other than the property tax were highly important and yielded, as we have just seen, over $40,000,000.

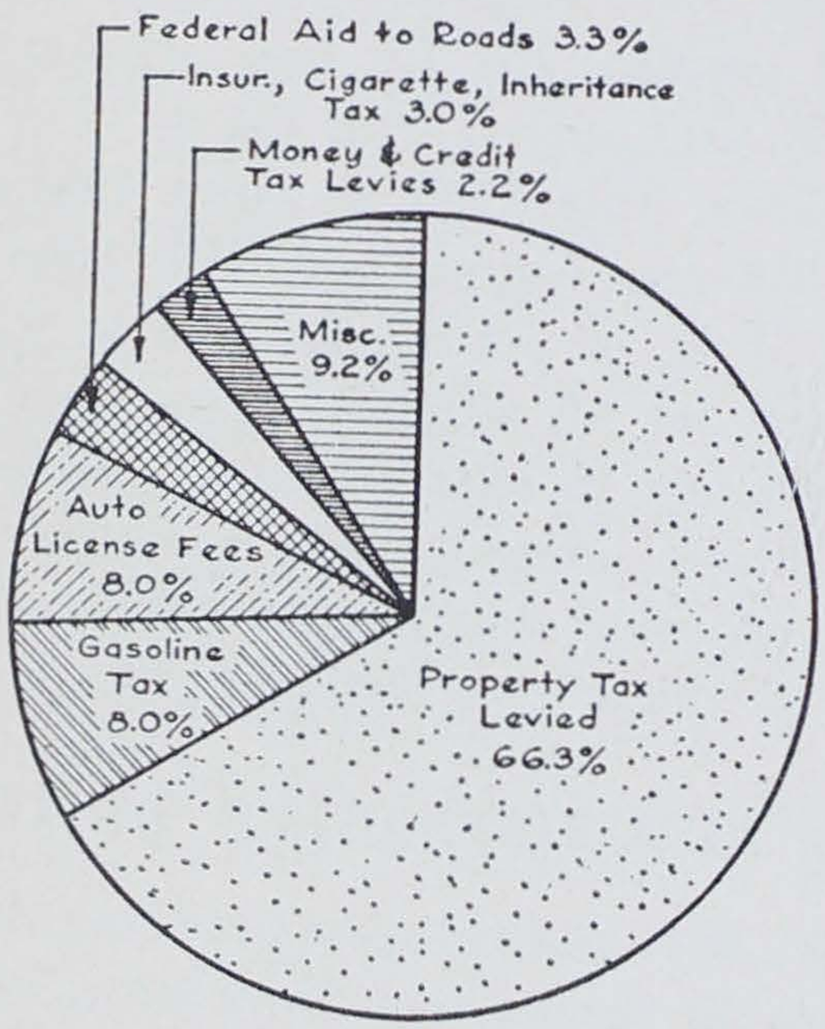

Fig. 1. Percentage of public funds coming from different sources, all admintstrative units combined.

Table III shows that out of this $145,000,000 about $43,000,000 goes to agencies under the administration of the state. This includes expenditures on the primary road system, which is under the state's jurisdiction. The counties received out of the total about $41,000,000 including funds for use on the secondary road system. The public school system of the state received approximately $46,000,000. Slightly over $14,000,000 went to municipalities.

If we combine the county and the state road systems, we find that they received in 1931 approximately $42,000,000 in addition to funds raised by the sale of bond issues. The educational system, if it be taken to include both the public schools and the institutions of higher education, received roughly $55,000,000.

The $14,323,000 shown in table III as going to support cities and towns does not represent the entire revenue of these ad-

Source of income	Total	To State Yr. to June 30, 1932	To counties(a) Yr. to Dec. 31, 1931	To schools Yr. to June 30, 1932	To mounicipalities Yr. to March 31 1932
Property tax levied(b)	$ 97,015,488	$ 8,321,920(c)	$30,680,530	[$44,330,391(b)]	$13,682,647
				43,374,911(h)	
Moneys and credits levied(b)	3,231,855	730,265(c)	620,914	[1,240,843(b)]	640,249
Auto licenses(d)	11,657,148	.....	.....	.....	.....
To primary road fund	.....	10,544,083(e)	[346,678(d)]	.....	.....
To other funds	.....	756,387(e)	372,993(b)	.....	.....
Gasoline tax(f)	11,727,559	[7,645,611(b)]	[4,114,000(d)]	.....	.....
		7,613,559(d)	4,490,000(b)	.....	.....
Federal aid to primary roads(d)	4,814,340	4,814,340	.....	.....	.....
Insurance tax(d)	1,653,119	1,653,119	.....	.....	.....
From counties for care of patients, etc.(d)	[1,745,072]	[1,745,072]	.....	.....	.....
From institutions under Board of Control(d)	1,135,204	1,135,204	.....	.....	.....
Cigarette tax(d)	1,207,138	1,207,138	.....	.....	.....
Inheritance tax(d)	812,555	812,555	.....	.....	.....
Equipment car tax(d)	47,073	47,073	.....	.....	.....
Federal aid for agricultural vocational schools(d)	170,701	.....	.....	170,701	.....
State aid to schools(d)	[416,008]	.....	.....	[416,008]	.....
Motor vehicle carrier tax(d)	$ 312,372	$ 114,021	$ 164,261(b)	.....	.....
			[198,251(d)]	.....	.....
Other trust funds(g)	443,936	443,936	.....	.....	.....
Poll tax(b)	418,685	.....	418,685	.....	.....
Care of county patients(b)	390,407	.....	390,407	.....	.....
Fees collected, fines, sales, etc.	2,652,650	1,359,580(d)	1,293,070(b)	.....	.....
From institutions under Board of Education(j)	3,500,000	3,500,000	.....	.....	.....
Semi-annual apportionment(k)	1,301,357	.....	.....	$ 1,301,357	.....
Miscellaneous	4,600,648	.....	2,797,500	1,517,812	.....
Total of above items	$144,979,217(l)	$43,063,180	$41,228,360	$ 46,364,781	$14,322,896(m)

(a) Sinking fund, domestic animal fund, drainage tax, sale of school books omitted. It was necessary to combine in this coulmn figures from several different sources. It, therefore, probably contains a small margin of error. Items in parentheses are not included in the total of the column in which they occur.
(b) Year beginning January 1, 1931.
(c) Amount levied. The State actually drew $10,268,130 from State taxes, thereby reducing its balance on hand.
(d) Year beginning July 1, 1931.
(e) Amounts collected year beginning July 1, 1931. The State actually drew $12,500,000, thereby reducing its balance.
(f) Collections for year beginning July 1, 1931, from "Motor Vehicle Fund Apportionment Certificate."
(g) Year beginning July 1, 1931, omitting $771,823 motor vehicle suspense fund.
(h) Tax from property and moneys and credits for year July , 1931, to June 30, 1932.
(j) This figure approximate, for year beginning July 1, 1931. Includes appropriations by Federal Government to State College at Ames, tuitions and fees collected, private gifts, gross income from hospitals, dormitories and dining services, sales of products and income from revolving funds.
(k) Fines, interest on school fund, plus 1 mill county school tax.
(l) This is the sum of the four totals given to the right for receipts by State, counties, schools and municipalities. It should be remembered that this figure does not represent the receipts of administrative units for any single year, since the fiscal years of State, county, school district and municipality do not coincide.
(m) Does not represent the entire income of Iowa municipalities. Figures on net returns from sale of electric current, water rates, etc., not available.

ministrative units. Many of them also have incomes from other sources. One of the more common sources of such income is electric current, water, etc., sold by municipal plants. In some cases rates for these services are set higher than is necessary to support the municipally owned utilities, and part of the income is diverted to the general purposes of the city governments. This is, in effect, a tax on these utilities. It is not possible to tell what it amounts to for the combined cities of the state.

If these figures be expressed per capita, we find that the total income of the various administrative units which we have been discussing amounted to approximately $59 for each man, woman and child in 1931. Of this amount approximately $22 was spent for educational purposes and $17 for roads in addition to city appropriations for streets.

It should be remembered that the figures just given to show the total receipts of the various administrative units of the state refer to the gross receipts and not merely the receipts from taxes. Anyone interested in seeing what becomes of taxes which he pays in his particular taxing district should consult the information on tax levies on the back of his tax receipt. Examples of two such tax distributions are given in the last section of this chapter. Also the Agricultural Extension Service has recently worked out and tabulated such information from more than 1,500 farms.

EXPENDITURES OF THE STATE GOVERNMENT

Out of the total income of approximately $145,000,000 the state government, or agencies under its administration, spent in the year ending June 30, 1932, $46,701,944. In considering the figure, however, we should have in mind the functions performed by state agencies.

Table IV shows that $4,747,517 was spent by about 30 agencies listed by the Auditor of State under the general heading State Departments. About half of this amount was spent by five departments, the State Department of Public Instruction, the Executive Council, State Department of Agriculture, District Court and State Fair Board. The expenditures under the Departments of Agriculture and Public Instruction included about $775,000 for tuberculosis eradication, state aid to consoli-

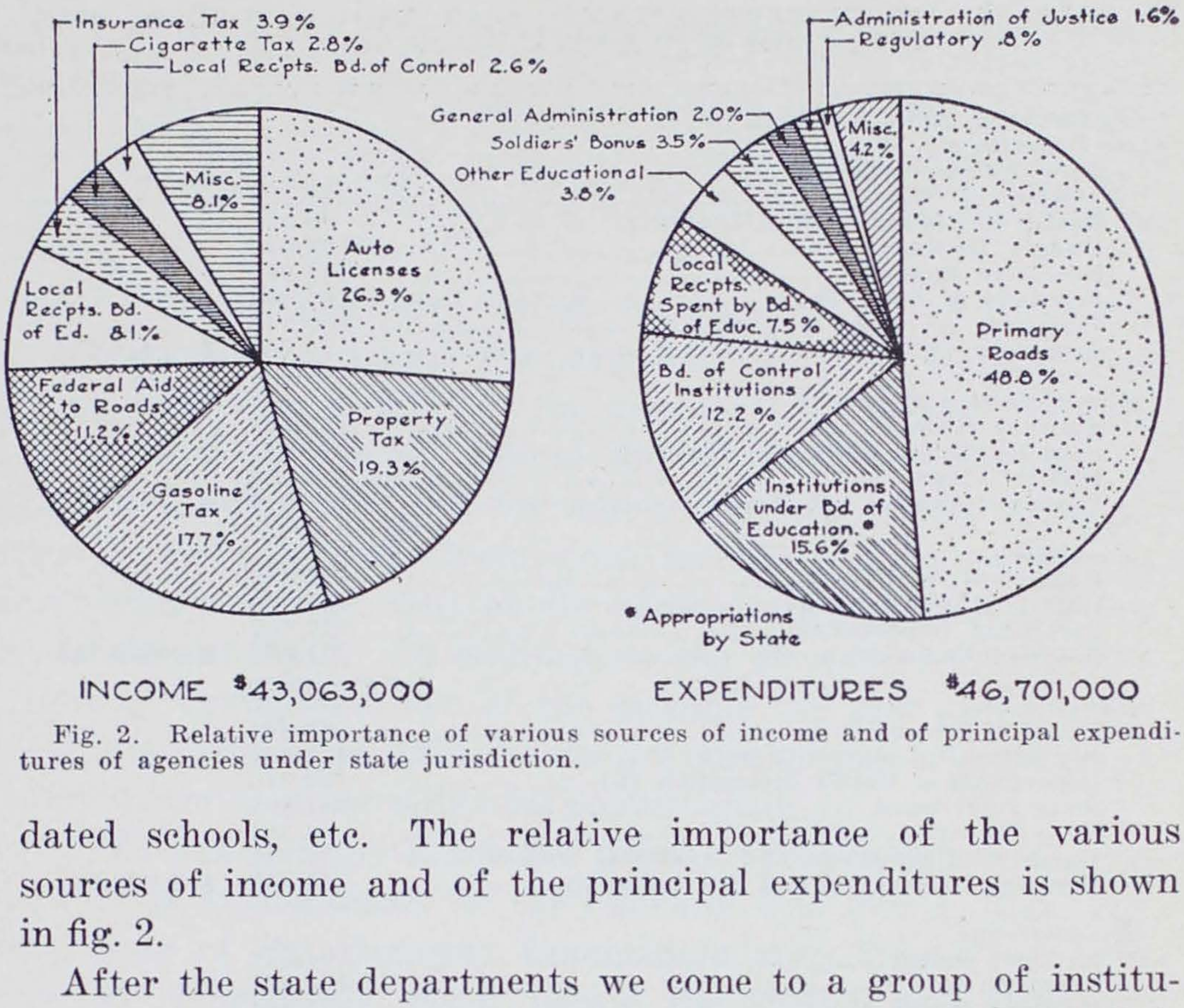

Fig. 2. Relative importance of various sources of income and of principal expenditures of agencies under state jurisdiction.

dated schools, etc. The relative importance of the various sources of income and of the principal expenditures is shown in fig. 2.

After the state departments we come to a group of institutions supported out of state funds. Among these the State University received from state funds $2,450,000 and the State College at Ames $2,433,029. The State Teachers College at Cedar Falls spent $868,500. Schools for the deaf and blind required $415,212. The General Hospital at Iowa City spent $1,019,000 for care of indigent patients and the Psycopathic Hospital received $108,000. In addition to these sums the institutions under the Board of Education spent approximately $3,500,000 of receipts from tuition, gifts, sales, receipts from dormitories and dining services and appropriations from the Federal Government.

It is also necessary to maintain certain penal institutions and hospitals for the insane, feeble-minded, tubercular, etc. The penal institutions under the State Board of Control cost $2,290,052. The state hospitals for insane, etc., cost $2,351,465, and other institutions under the Board of Control spent $1,032,679.

There are also expended under the jurisdiction of the state certain so-called "Trust Funds." These "Trust Funds" are revenues such as the gasoline tax, auto license fees, fishing and

TABLE IV. STATE EXPENDITURES—YEAR ENDING JUNE 30, 1932
DATA FROM OFFICE OF AUDITOR OF STATE

EXPENDITURES FROM GENERAL STATE FUND:		
State Departments, etc.		
General Administration		
Auditor of State	$ 158,855	
Board of Assessment and Review	83,228	
Budget Director	22,938	
Executive Council	465,989	
Secretary of State, etc.	61,001	
Treasurer of State, etc.	109,544	
Governor	17,666	$ 919,221
Administration of Justice		
Attorney General	115,100	
Supreme Court, Clerk and Reporter	119,017	
District Court	373,998	
Boards of Control and Parole	133,297	$ 741,412
Regulatory		
Department of Health	147,569	
Industrial Commission	59,503	
Insurance Department	107,702	
Railroad Commission, etc.	81,966	$ 396,740
Education		
Board of Education	68,623	
Department of Agriculture (a)	441,961	
Department of Public Instruction (b)	739,979	
State Fair Board	327,500	
State Library	54,281	
Historical Department and Historical Society	82,791	
Vocational Education and Rehabilitation	53,809	$ 1,768,944
Miscellaneous		
National Guard	194,876	
Camp Dodge	204,811	
Printing Board	153,234	
State Parks and Roads	147,808	
Miscellaneous	220,471	$ 921,200
Total State Departments		$ 4,747,517
State Educational Institutions		
State University of Iowa	2,450,000	
For Indigent Patients, University Hosiptal	1,018,812	
Psycopathic Hospital	108,000	
Soldiers' Tuition	5.246	
Iowa State College	2,433,029	
State Teachers' College	868,500	
School for Deaf and Blind	415,212	$ 7,298,799 (c)
Institutions Under Board of Control		
Penal Institutions	2,290,052	
State Hospitals	2,351,465	
Other Institutions	1,032,679	$ 5,674,196
Soldiers' Bonus		$ 1,638,388
EXPENDED FROM "TRUST" FUNDS:		
Primary Roads	$22,573,001	
Highway Commission	224,280	$22,797,281
Motor Carrier Trucks	61,257	
Motor Carrier Administration	39.686	
Motor Vehicle Administration	410,565	$ 511,508
Banking Department		98,610
Fish and Game Department		303,729
Miscellaneous		131,916
Total from "Trust" Funds		$23,843,044
EXPENDED FROM LOCAL RECEIPTS OF INSTITUTIONS UNDER BOARD OF EDUCATION (c)		3,500,000
Grand Total State Expenditures		$46,701,944

(a) The Department of Agriculture is partly regulatory. This figure also includes State's share of tuberculosis eradication expense and subventions to various agricultural societies amounting in all to $289,900.

(b) Including aid to normal training, consolidated schools, standard rural schools, mining camp schools amounting to $484,950.

(c) This figure, approximate. Includes appropriation by Federal Government to State College at Ames, tuitions and fees collected, private gifts, gross income from hospitals, dormitories and dining rooms, sales of products and income from revolving funds.

hunting license fees, etc., which are required to be spent for certain specific purposes. The largest of the Trust Fund expenditures is for the support of the primary road system. Including the expenditure of federal aid funds, this amounted to $22,573,001 plus $224,280 for administration. These expenditures by the Highway Commission include a large amount of new construction as well as the maintenance of the primary roads already built. In addition to the amounts spent by the Highway Commission out of the gasoline tax and auto license fees, other shares of these taxes are remitted to counties for maintenance or construction of county roads.

The figures just given for the primary road system comprise the current expenditures for the year Jan. 1 to Dec. 1, 1931. The fiscal year of the Highway Commission runs from Dec. 1 to Nov. 30. During the latter period for 1930-31 the Highway Commission reports the expenditure of $28,143,206 for construction, $3,361,930 for maintenance, $3,753,355 for interest and $1,592,500 for redemption of bonds. Approximately $11,000,000 of this, however, was raised by the sale of bonds and did not come out of current revenue. Also during the year December, 1930, to November, 1931, federal aid amounted to $6,631,533.

To summarize the state expenditures in round numbers, it may be said that about $23,000,000 from current revenue was spent by the state in the year ending June 30, 1932, for the primary road system including administration by the State Highway Commission. Six million dollars plus local receipts was spent for the support of state institutions of higher education. Five and a half millions was spent for penal institutions and state hospitals under the Board of Control and one million for indigent patients at the hospital at Iowa City. Five million dollars was spent for the state departments and one and one-half millions for the soldiers' bonus.

It should not be inferred, however, that the sums just mentioned provide the entire support for all the state institutions.

In the case of state hosptials there are also county expenditures for the care of patients which amounted to $1,800,000. Included in this latter figure are payments by patients or their families, of which about $390,000 was collected by the counties. Other sums were collected by the institutions themselves. In the case of the state educational institutions there are also the receipts which have been mentioned from tuition fees, federal appropriations and from the sale of produce.

EXPENDITURES OF COUNTY GOVERNMENTS

As shown in table V, the total of the expenditures under county governments, exclusive of schools, amounted in the year 1931 to about $41,327,000. The relative importance of the different expenditures is shown in fig. 3. The largest element of county expenditure is for the construction and maintenance of roads. This, according to the reports of the county engineers, amounted to $20,237,000, of which $8,600,000 was for construction and $11,637,000 was for maintenance. Of course, during such periods as the present a large part of the construction program can be deferred. This has, in fact, been done in most counties during 1932 and 1933.

TABLE V. SUMMARY OF COUNTY EXPENSES, JAN. 1, 1931-DEC. 31, 1931

(Figures derived from County Auditors' reports to Auditor of State, except where otherwise noted)		
County offices		$ 6,319,759
Court expenses		1,400,412
County homes	$ 1,208,710	
Poor outside county homes	3,358,263	4,456,973
Support of insane in state hospitals	1,307,018	
Other institutions	494,479	1,801,497
Farm aid associations (farm bureaus)		345,160
Bounties paid	157,865	
Printing and stationery	542,768	
Courthouse expense	613,419	
Soldiers' relief	306,228	
Supplies	317,108	
Miscellaneous	2,003,120	3,940,508
Interest on bonds and certificates (a)	1,283,776	
Reduction in county bonds and warrants (b)	1,432,375	2,716,151
County road construction (c)	8,599,675	
County road maintenance (c)	11,637,050	20,236,725
Total		$41,327,185

(a) Excluding Primary Road bonds, as summarized in County Treasurers' reports to Auditor of State.
(b) Excluding Primary Road bonds—data from office of Auditor of State.
(c) From engineers' reports as summarized in State Highway Commission's Report for 1931.

It is, however, pertinent to the business situation that the reduction in the amount of road construction has, to some degree, added to the number of unemployed.

After roads the largest items of county expense were for the support of the county offices, support of the poor, interest and retirement of bonds, support of patients in state hospitals, court expenses, upkeep of courthouses, and printing and stationery, in the order named. These seven items amounted to just under $18,000,000. The eighth largest item was the appropriation to Farm Aid Associations (or farm bureaus), which amounted to $345,160.

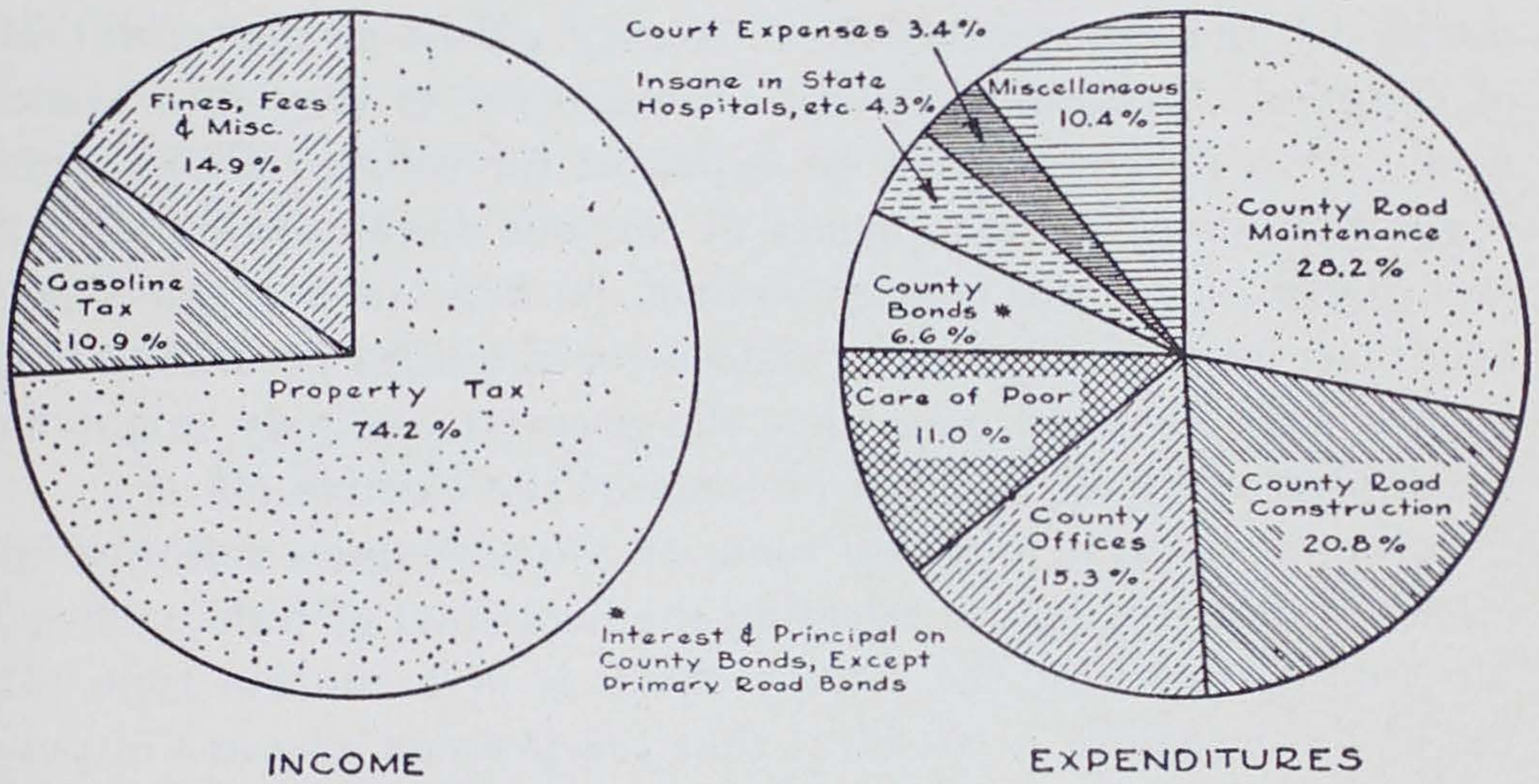

Fig. 3. Relative importance of the different expenditures and sources of income of county governments.

TABLE VI. EXPENSES OF COUNTY OFFICES
(From Reports of County Auditors to the Auditor of State)

Office	Salary	Deputies and other help	Mileage expenses; Care of prisoners	Misc. expense	Total expense
County supervisors..	$ 405,906	$.....	$ 225,734	$ 11,877	$ 643,517
Sheriffs	193,774	307,113	478,719	16,944	996,550
Auditors	207,419	325,298	.....	15,842	548,559
Treasurers	207,897	455,919	.....	121,386	785,202
Recorders	180,899	144,554	.....	6,881	332,334
Clerks of district courts	205,042	227,278	.....	7,428	439,748
Attorneys	152,641	150,187	.....	60,295	363,123
County engineers	723,531	.....	.....	97,714	821,245
Supt. of schools	204,161	105,568	.....	68,403	378,132
Coroners	23,724	.....	.....	.....	23,724
Assessors	688,046	.....	.....	138,704	826,750
Misc. officers	160,875	.....	.....	.....	160,875
Total	$3,353,915	$1,715,917	$ 704,453	$ 545,474	$6,319,759

Table VI shows the expenses of the various county offices. These amounted in the aggregate to $6,630,000. The largest outlay was in the office of the sheriff, which includes care of prisoners. The next largest expenses were for the offices of assessors, county engineer, county treasurer, and county supervisors. But it should be remembered that the amounts of outlay do not necessarily indicate either the amount of service performed or the opportunity for economizing.

Possible County Economies—Consolidation of Counties

There is a growing belief that a large opportunity exists for saving by the reorganization of county offices or consolidation of counties. Reorganization in the counties as they now stand would have its chief effect on expenses for county offices. One suggestion that has been made at various times is that all or essentially all of the county records be kept in a single office and that some of the county officers or deputies be eliminated. In this case it would seem that the greatest economy might be accomplished by elimination of some of the elective officers.

It would be well to apply some of the principles followed in other lines of business in selecting the personnel of public offices. Most of the work of the county offices is of a routine type. It might be suggested as an ideal that the persons who are to perform such duties be selected from groups specially trained for the type of work in question, that they be selected by competitive examinations, and that they hold office as long as they perform their duties honestly and efficiently.

Undoubtedly a large saving could be made by the reorganization of offices in the present counties. But the maximum saving can hardly be made without the consolidation of counties into a smaller number of perhaps 25 or 30 larger units. This should permit a greater saving on the county offices than reorganization within the present counties. It should also permit savings in expenses for county homes, in courthouse expense and purchase of supplies.

Of course it is not possible to tell in advance exactly what saving is possible by county reorganization or consolidation. But some idea may be obtained by a study of the variation in particular costs in counties of different sizes. Tables VII and

VIII bear on this question. Table VII shows the variation in costs of operation of county offices as between three groups, each of which contains seven counties. The small counties had an average population of approximately 13,000. The large counties averaged about 40,000. The cost of the county offices in the large counties was 67 cents per capita less than in the small ones. This is about 24 percent less than in the small counties.

Expenses for the support of the poor were about the same per capita in large and small counties, except that the larger and richer counties sometimes seemed to be more liberal in providing this care. The consolidation of the county homes of three or four counties into one, however, would almost certainly achieve some economy not indicated by these figures, since the ordinary county home is too small for economical operation.

Table VIII shows the variation in costs of conducting the county offices as between three groups arranged with regard to the number of square miles per county. The expenses for these

TABLE VII. VARIATION IN COSTS OF COUNTY OFFICES—1931
COUNTIES WITH SMALL AND LARGE POPULATIONS

	Average costs per capita		
	7 small counties	7 med. size counties	7 large counties
Population, average per county	12,888	16,649	39,830
County Offices:			
Boards of supervisors	$ .32	$ .40	$ .28
County sheriffs	.40	.34	.37
County auditors	.25	.27	.20
County treasurers	.33	.33	.31
County recorders	.19	.17	.12
County attorneys	.17	.13	.15
Clerks of district courts	.24	.19	.16
Supt. of schools	.25	.23	.15
County engineers	.24	.18	.13
Farm Aid Associations (Farm Bureau)	.23	.18	.11
Courthouse expenses	.23	.22	.20
Total capita expenses for above county offices	$ 2.85	$ 2.64	$ 2.18
Other Selected County Expenses:			
County homes	.38	.54	.38
Poor outside county homes	1.38	1.36	1.58
Misc. court expenses	.44	.35	.51
Assessors	.32	.27	.30

The seven small counties are: Worth, Ida, Emmet, Winnebago, Humboldt, Wayne and Grundy.

The seven medium sized counties are: Hancock, Palo Alto, Pocahontas, Bremer, Guthrie, Butler and Buena Vista.

The seven large counties are Washington, Crawford, Kossuth, Fayette, Story, Pottawattamie and Linn.

TABLE VIII. VARIATION IN COSTS OF COUNTY OFFICES—1931
COUNTIES WITH SMALL AND LARGE AREAS

	Average cost per square mile		
	6 small counties	7 med. size counties	6 large counties
Average number square miles	414	548	693
County Offices:			
Boards of supervisors	$ 10.44	$10.76	$11.35
County sheriffs	12.08	12.03	10.92
County auditors	8.53	7.47	7.28
County treasurers	10.16	10.02	9.90
County recorders	6.30	5.12	4.44
County attorneys	6.11	4.11	4.03
Clerks of district courts	7.71	5.97	4.99
Supt. of schools	8.04	6.85	6.21
County engineers	16.98	13.20	12.33
Farm bureau	8.01	5.28	4.83
Courthouse expense	6.72	7.33	6.89
Total expense for county offices per square mile	$101.08	$88.14	$83.17

The six small counties are: Emmet, Winnebago, Worth, Ida, Humboldt and Bremer.

The seven medium sized counties are: Grundy, Wayne, Washington, Palo Alto, Story, Hancock and Buena Vista.

The six large counties are: Pocahontas, Butler, Guthrie, Crawford, Fayette and Kossuth.

offices declined from $101 to $83 per square mile as the average area increased from 414 to 693 square miles per county, a decline of around 17 percent.

It is not possible to tell how much further these expenses would be reduced if the counties were increased, for instance, to four times their present size. This would require a county approximately 48 miles in each direction instead of 24 miles as at present, and with a population in the neighborhood of 75,000. It is not likely that the expense per capita would continue to decline at as rapid a rate, but some further saving might well be expected.*

On the other hand, in some directions expenses would be increased rather than diminished by the consolidation of counties. Thus in a larger county it would be necessary to maintain only

*The State Constitution provides that "no law changing the boundary lines of any county shall have effect until, upon being submitted to the people of the counties affected by the change at a general election, it shall be approved by a majority of the votes in each county for and against it." Thus it would be necessary for the people in any county to vote on the question whether that county should become a part of a new and larger county unit. Apparently, it would not be necessary for each and every county in such new unit to approve such a plan before the consolidation of any of the counties concerned. That is, a pair of counties could consolidate and later this pair could be joined by a third, as long as these were all within the boundaries of the new county unit defined by the legislature.

one courthouse but in many cases witnesses would have to travel farther to court than in the smaller county.

There is a third alternative in the reorganization of county expenditures, as a compromise between reorganiztaion within the present counties on the one hand and county consolidation on the other. It would be possible to reorganize most of the county offices within the framework of the present counties. At the same time such institutions as the county homes and possibly district courts could be combined for groups of counties in order to obtain the maximum of economy with these institutions.

Variation Within the County

There is a wide variation in the tax levies within the county. One reason is that the rate of assessment differs more or less with each township or town assessor. A second is that, as between two districts requiring the same total sums to support schools, roads, etc., the one may have lower property valuation from poorer soil or for other reasons. A third reason is that the public services performed vary widely. One taxing district may have a one-room schoolhouse while an adjacent one has a fully equipped consolidated school, giving a better quality of service but also with the necessity of providing transportation for pupils. Naturally, towns have higher tax rates than rural districts, because of a greater number of services performed and often because of a lower property valuation in proportion to the income of the people and to the public expenditures.

Taxes are collected on the basis of a millage levy. This is based upon the taxable valuation of property. The Iowa law prescribes that this shall be one-fourth of the actual or sales value. The millage levy is determined by finding the ratio between the total amount of money levied for a specified item and the taxable value of the property upon which the levy is made.

As an example of the prevailing variation, the levies in the rural districts of one county ranged from 60.4 mills to 152.8 mills. In the cities and towns in the same county the variation was from 76.8 to 173.9 mills. In all these districts the levy for state purposes was 9 mills. In the towns the levy for county purposes was 28.8 mills. In the rural districts the county levy was 42.6 mills because of higher levies for roads. Thus the total

state and county levy in towns was 37.8 mills, and in the rural districts 51.6 mills. All of the other variations were in the levies for local purposes.

The variation in local levies in towns was from 39 mills to 136.2 mills. In the rural districts the one with the lowest levy raised only 8.8 mills for local purposes while that with the highest raised 101.2 mills for local purposes.

The distribution of the tax dollar will also vary from one district to another in the same county. Nine mills were for state purposes in all districts of this particular county. But because of variations in the total, the percentage represented by this 9 mills varied from 5.9 to 14.9 percent in the rural districts, and from 5.2 to 11.7 percent in the towns. Likewise the county levy varied from 27.9 to 70.6 percent of the total in the rural districts and from 16.5 to 37.5 percent in the towns. To complete the picture, the local levies varied from 14.5 to 66.2 percent in the rural and from 50.3 to 78.3 percent in the town districts.

When one considers these figures it is easy to see why widely differing distributions of the tax dollar are frequently quoted. Before quoting such figures at all, one should state to just what kind of districts the figures refer. An illustration of the difference in distribution between two farms in the same county is given in the last section of this chapter.

The Reduction of County Levies

During recent months several counties have taken more or less drastic steps to reduce their tax levies. The first sweeping move in this direction was accomplished by means of the Elliott Bill which required a reduction in all levies of 5 percent. This started a state-wide movement towards tax reduction even though it was not possible to put its provisions into effect in every county.

The next step was in the paring down of county budgets and the reduction of levies by supervisors in a large number of counties. One favorite method was by ignoring the provisions of the law which require mandatory levies for the maintenance and construction of roads. In some cases it may be possible to discontinue some of these levies permanently without seriously injuring the county road systems. In many cases, however,

this relief is likely to prove temporary. Neglect of present maintenance may be followed by heavier future requirements.

Webster County is one of those which has accomplished the largest tax reduction, at least for the present. It is interesting to observe how this was done. Table IX shows that tax levies for county purposes were reduced from $437,627 for 1931 to $281,758 for 1932. First, there was a reduction of 26 percent in the levy for general county expenses, and a reduction of 34 percent in the levy for court expense. The poor fund, state and county insane, and soldiers' relief levies were left at nearly the same figures as in 1931. The county school levy of one mill was dropped. School expenses were being reduced anyhow, and this obtained part of the credit for the county. The levy for bovine tuberculosis was omitted since there was some balance in the fund and requirements were not expected to be large. The levy for the bond fund was cut in half. This was possible because of funds on hand. But since interest on bonds must be paid, the reduction is temporary.

The largest reduction was accomplished by neglecting two of the four mandatory road levies. The road levies made amounted to 7½ mills as against 17 in the preceding year. This permits practically no road construction during the present year and reduces the funds available for maintenance to approximately one-half. It may be remarked, however, that Webster County has already gravelled a rather high percentage of its secondary roads.

TABLE IX. TAX LEVIES, WEBSTER COUNTY, 1931 AND 1932
(Data from office of County Auditor, Webster County)

	1931	1932
General county	$ 90,496	$ 67,283
Court expense	22,624	14,951
Poor fund	45,248	44,856
State insane	15,083	14,951
County insane	22,624	22,428
County school	15,083	.....
Soldiers' relief	15,083	14,951
Bovine tuberculosis eradication	3,771	.....
Bond fund	30,160	14,951
Road construction or maintenance (2½ mills)	37,707	37,380
Road construction (2 mills, except Fort Dodge)	20,219	.....
Road maintenance (5 mills, except Fort Dodge)	50,546	50,007
Road maintenance (7½ mills, except cities and towns)	68,983	.....
Total	$437,627	$281,758

Undoubtedly, reduction in most of the items mentioned is possible and desirable. It is possible, however, to reduce expenditures for some purposes too much for the people's present or future welfare. A radical reduction may be worse than none at all. Just what reduction is most desirable will differ from county to county and should be given serious thought before it is put into effect.

EXPENDITURES FOR THE PUBLIC SCHOOL SYSTEM

As indicated on an earlier page, the expenditures for the public school system required about $16,265,000 in 1931-32. The principal items of expense are shown in table X, and their relative importance is illustrated in fig. 4. The largest is for salaries of teachers. This amounted to $28,611,208 for over 26,000 teachers, principals and superintendents. The next largest item is for fuel, janitor service, etc., and amounted to $5,403,659. Interest on school bonds was $2,546,875, and $2,761,146 was paid on bonds. The bonded debt, however, did not decrease by this amount because refunding bonds were issued to the extent of $351,026 and $518,515 new bonds were sold. After these items came apparatus and repairs, transportation for pupils, and payments for schoolhouses and sites, each amounting to over $1,000,000.

TABLE X. SCHOOL EXPENDITURES, STATE AS A WHOLE

Expenditures from General Fund: (a)		
Paid teachers	$28,611,208	
Secretary	289,992	
Library books	132,201	
Textbooks and supplies (net)	283,628	
Fuel, rent, janitor, etc.	5,403,659	
Records, apparatus, repairs and insurance	1,374,042	
Transportation	1,911,577	
For other purposes	2,294,459	
Total from general fund		$40,300,766
Current Expenditures from Schoolhouse Fund:		
For schoolhouses and sites (b)	$ 564,382	
Paid on school bonds (c)	2,410,121	
Interest on school bonds	2,546,875	
Interest on registered warrants	7,319	
For other purposes	435,040	
Total from schoolhouse fund		5,963,737
Total		$46,264,503

(a) Does not include tuition paid other schools, nor transfers from general to schoolhouse fund. In the case of disbursements for textbooks, the net purchase is given. That is, the disbursements minus the sale of books.

(b) Total paid for schoolhouses and sites was $1,082,897, but $518,515 of this was covered by bonds sold and did not come out of current revenue.

(c) Total payments on bonds of $2,761,146, less refunding bonds of $351,025.

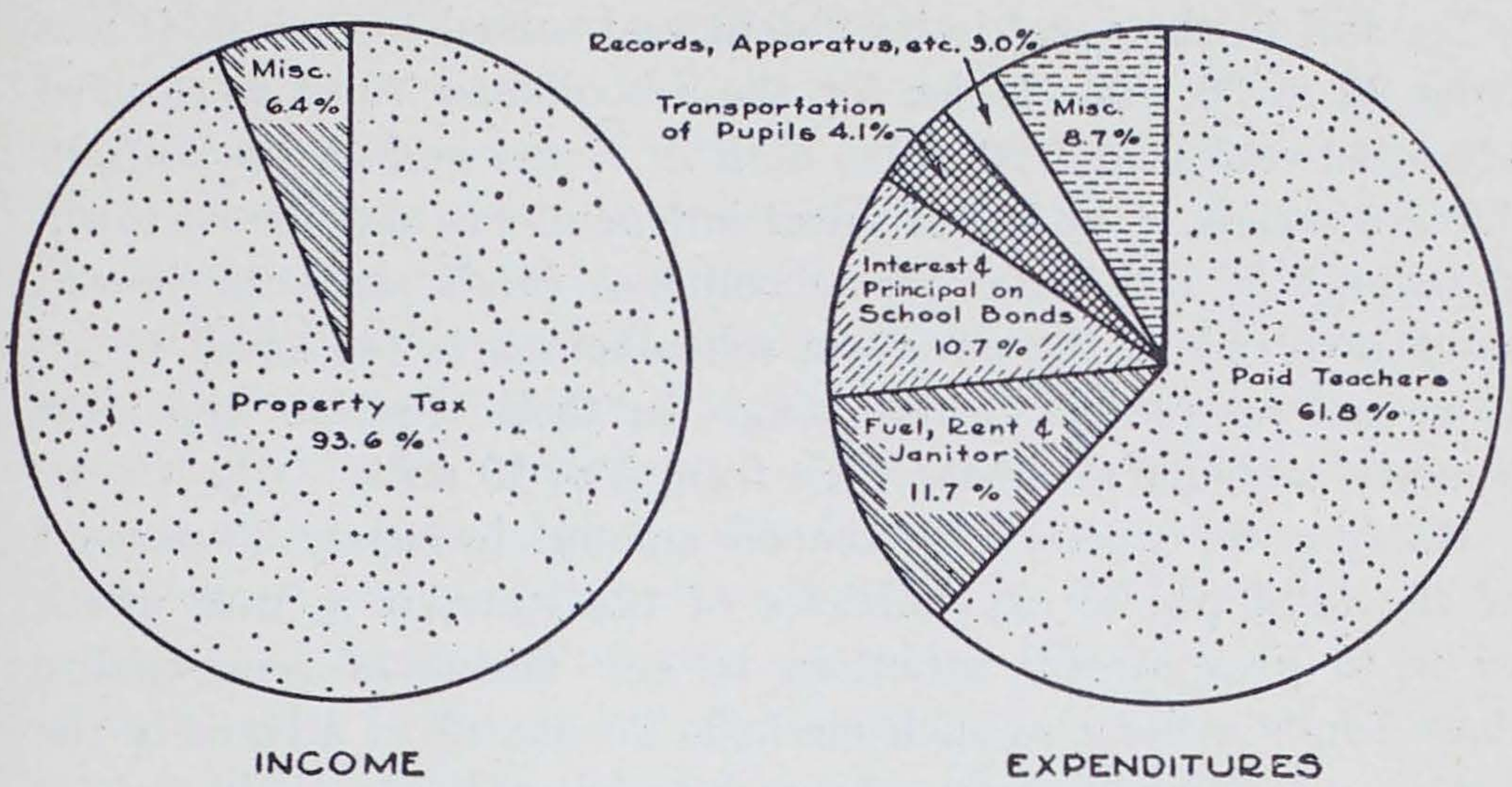

Fig. 4. Relative importance of the different items of expense for the public school system.

The school expenditures are responsible for the largest part of the variation in the total tax bills of different districts. Table XI gives a good idea of the wide spread in the school levies in 10 counties in which a special study was made. In the 62 towns for which data were obtained the most common levies for the general school fund were from 50 to 80 mills. In the 65 consolidated school districts the typical levy was between 40 and 60

TABLE XI. VARIATION IN GENERAL PROPERTY LEVIES FOR SCHOOLS—TEN COUNTIES (a)

	General school fund			Schoolhouse fund		
	City and town	Consolidated districts	Rural, Independent and school townships	City and town	Consolidated districts	Rural, Independent and school townships
No. districts.....	62	65	467	62	65	467
Mills per dollar						
0	.....	.....	1	15	6	412
1- 10	1	.....	22	12	24	42
11- 20	1	.....	135	24	31	11
21- 30	4	3	192	8	4	2
31- 40	4	8	87	2	.....	.....
41- 50	2	26	23	1	.....	.....
51- 60	11	25	4	.....	.....	.....
61- 70	11	3	2	.....	.....	.....
71- 80	12	.....	1	.....	.....	.....
81- 90	9	.....	.....	.....	.....	.....
91-100	2	.....	.....	.....	.....	.....
101-110	2	.....	.....	.....	.....	.....
111-120	2	.....	.....	.....	.....	.....
121-130	1	.....	.....	.....	.....	.....

(a) The counties were Buena Vista, Fayette, Grundy, Guthrie, Linn, Pottawattamie, Story, Warren, Washington and Worth.

mills, and in the rural independent and school townships it was from 20 to 30. The levies for the schoolhouse fund were most often between 5 and 20 mills, both in towns and in the consolidated districts. Out of 467 rural independents and school townships only 55 had levies for schoolhouse funds since the investment involved in the one-room schoolhouses is too small to involve a long period of financing. In these districts the most common schoolhouse levies were from 5 to 10 mills.

Because the expenses for schools amount to nearly 30 percent of the total public expenditures of the state, it is well worth while to give careful attention to any means of economizing these funds as long as such methods do not affect adversely the quality of the education. Iowa has taken pride in its school system and each specific measure for the reduction in school taxes should be considered in the light of its effect on education.*

Most of the more obvious means of school economy have already been put into effect by the school boards. The first of these to be adopted widely has been the reduction of the salaries of teachers. This has accomplished some relief, particularly in rural districts. Often the larger reductions have worked more hardship to teachers and pupils than relief to the taxpayers since a 10-dollar per month pay cut to a rural teacher means on an average a 6-dollar per year tax reduction per farm. The rural districts have generally adopted more drastic salary cuts than the town schools. If this policy is continued it will be to the disadvantage of the country children since it has the effect of driving the more capable teachers to the towns. The country child is already under a serious educational disadvantage and drastic reductions in the salaries of teachers are not calculated to improve this condition.

School authorities recommend that a larger proportion of the school expenses should be borne by a uniform state tax to replace part of the local tax. This would be an important step towards equal educational opportunities at equal cost for the different types of districts.

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*"Our nation faces the acute responsibility of providing a right of way for fthe American child. In spite of our economic, social and governmental difficulties, our future citizens must be built up now. We may delay other problems but we cannot delay the day-to-day care and instruction of our children."—From speech of President Hoover in opening the Citizens' Conference on the Crisis in Education.

However, there are, in many districts, opportunities of reducing school expenditures without adverse effects. One of these is by closing the schools with only a small number of pupils (probably those with less than 10) and making arrangements for the needed educational facilities in adjacent districts. A second is for closing the high schools having a small attendance, perhaps those with fewer than 50 pupils. The closing of small schools often runs contrary to community pride, but the economy may be considerable. There are, for instance, cases in which small towns within 1 or 2 miles of each other maintain complete, independent school systems. Cooperation, in such cases, at least to the extent of a joint high school, would result in a material saving. It would seem that the concept of the community might profitably be enlarged, or that inter-community cooperation might well be made a matter of pride.

There are also in some schools some courses which may be regarded as non-essential during the emergency and there are some extra-curricular activities which might be discontinued temporarily.

In a good many of the consolidated and town schools a worthwhile opportunity to reorganize the bonded indebtedness is likely to develop in the near future. This will be taken up at greater length in the next section.

Each school presents something of a problem in itself and relatively few suggestions can be made of a blanket type. School superintendents and members of school boards who are interested in keeping their expenses to a minimum (as all should be) should check over their finances carefully. Valuable suggestions and advice may be obtained from the State Department of Public Instruction, which has prepared a check list of financial economies for a local school district.

THE PUBLIC INDEBTEDNESS OF IOWA

In the many recent discussions of public expenditure in this state very little has been said concerning the public debt. In fact, the interest on the various public bond issues comprises one of the largest of the public outlays. Table XII shows that the interest payments for the most recent year for which figures are available amounted to about $10,500,000. In addition to this there are the payments on principal to be considered. These

TABLE XII. INDEBTEDNESS OF IOWA ADMINISTRATIVE UNITS
Data from Office of Auditor of State (Compiled by Mrs. E. Mae Sweany)

	1932	1931	Change in year	Interest paid
County bonds, Jan. 1				
General county bonds....	$ 15,955,388	$ 18,172,834	—$ 2,217,446	
Bridge bonds	33,109,417	33,033,999	+ 75,418	
Courthouse bonds	1,275,000	1,483,000	— 208,000	
County road bonds.....	4,412,625	3,747,600	+ 665,025	$1,283,776
Total county bonds....	24,752,430	26,437,433	— 1,685,003	
County warrants	1,711,900	1,459,275	+ 252,628	
Primary road bonds, Dec. 1	96,445,500	85,117,500	+ 11,328,000	3,753,355
Primary road certificates, Dec. 1	448,059	571,304	— 123,245	
Primary road district fund warrants	108,531	169,718	— 61,187	
Secondary road district fund warrants	2,643	2,919	— 276	
Drainage bonds, Jan. 1....	5,165,893	6,585,271	— 1,419,378	(a)238,000
Drainage warrants	1,104,802	1,301,986	— 197,184	
City and town indebtedness, April 1	48,091,654	50,832,311	— 2,740,657	(a)2,165,000
School bonds, June 30.....	54,231,098	57,236,455	— 3,005,357	2,546,875
School warrants	1,289,445	807,604	+ 481,841	(a)7,319
State soldiers' bonus.....	11,000,000	12,100,000	— 1,100,000	538,388
Total	$244,351,958	$242,621,776	+$ 1,730,182	$10,532,713

(a) Approximate.

bring the total payments on public debts to around $20,000,000.

The largest element of the Iowa public debt, as shown in table XII, is comprised of $96,000,000 of primary road bonds. School bonds amount to $54,000,000, the indebtedness of cities and towns is $48,000,000, and county bonds are nearly $25,000,000. In addition to these there are smaller issues of state bonds for the soldiers' bonus, drainage district bonds, etc.

The Primary Road Bonds

The primary road bonds are worth studying both because of their large amount and also because they have been handled in the most businesslike fashion of any of the elements of debt mentioned. The large and relatively constant income from the gasoline tax and auto license fees, and strongly centralized control by the Highway Commission greatly facilitate an effective financial policy.

In general, the primary road bonds are scheduled for retirement in equal installments for each individual issue over a period

TABLE XIII. PRIMARY ROAD BONDS
Scheduled Maturities and Interest Payments
(Data from State Highway Commission)

Year	Amount maturing	Interest requirement	Total requirement
1933	$ 2,822,500	$ 4,351,961	$ 7,174,461
1934	4,036,500	4,257,490	8,293,990
1935	6,583,500	4,069,007	10,652,507
1936	8,891,500	3,762,465	12,653,965
1937	9,551,000	3,350,003	12,901,003
1938	9,906,000	2,916,675	12,822,675
1939	9,550,000	2,460,121	12,010,121
1940	8,875,000	2,024,455	10,899,455
1941	8,713,000	1,617,589	10,330,589
1942	8,425,000	1,220,075	9,645,075
1943	7,337,000	843,136	8,180,136
1944	6,364,000	507,491	6,871,491
1945	3,909,000	212,931	4,121,931
1946	990,000	41,760	1,031,760
1947	109,000	2,903	111,903
Total	$96,063,000	$31,638,062	$127,701,062

of 10 years. The heaviest payments for the system as a whole were scheduled to occur just after the scheduled completion of the construction program. The resulting maturities and interest payments for the primary road system as a whole are shown in table XIII. It will be observed that the total scheduled requirements rise to nearly $13,000,000 in 1937 and 1938, thereafter decline to $4,000,000 in 1945, and end with $112,000 in 1947. The primary road bonds are all callable, according to law, five years after they have been issued. This feature will permit the Highway Commission to take advantage of any pronounced decline in the interest rate on long time securities, and is likely to result in a considerable saving before these bonds are all retired.

County Bonds

Table XII shows that there were outstanding on Jan. 1, 1932, $24,752,430 of county bonds other than primary road bonds. This was $1,685,000 less than a year previously, the general county bonds having been reduced $2,217,000 and county road bonds having increased $665,000.

Table XIV shows the scheduled maturities of county bonds in the 10 counties in which the special study was made.* These bonds represent about one-eighth of the total for the state. The bonds now outstandings are scheduled to be retired in the next

15 years, except for a few thousand dollars of serial bonds and term bonds which will need to be refunded.† The latter amount to something over $2,500,000. For the state as a whole, about $900,000 of county bonds are now callable, and about $200,000 will become callable within the next four years. The counties which have these bonds outstanding will probably be able to refund them at some saving in interest within the next few years. County treasurers should be on the alert for opportunities to make such savings.

It is shown in table XVIII (page 51) that there are nearly $7,000,000 of county bonds carrying interest rates in excess of 5 percent. Five millions carry a rate of 6 percent. These were mostly issued about 1920 and neglect of the issuing authorities to attach an optional or callable feature will keep some counties paying this rate, which is excessive for public funds, for 20 years after issuance of the bonds. Boards of supervisors should con-

TABLE XIV. SCHEDULED MATURITIES OF COUNTY BONDS IN TEN COUNTIES

Year	Ten counties		Term bonds for whole state (a)
	Serial bonds	Term bonds	
1933	$ 336,500	$ 25,000	$ 110,000
1934	312,500	.....	20,000
1935	316,500	24,000	64,000
1936	296,000	.....	249,000
1937	276,500	.....	79,000
1938	271,500	.....	81,000
1939	272,000	28,000	28,000
1940	242,000	.....	308,000
1941	239,540	94,000	849,850
1942	147,000	24,000	398,500
1943	82,000	250,000	318,500
1944	88,000	82,000	192,000
1945	79,000	.....	.....
1946	68,000	.....	.....
1947	5,000	.....	.....
1948	5,000	.....	.....
1949	5,000	.....	.....
1950	9,000	.....	.....
Total	$3,051,040	$ 527,000	$2,697,850

(a) From Moody's Manual of Governments.

*These counties were Buena Vista, Fayette, Grundy, Linn, Pottawattamie, Story, Warren, Washington and Worth.

†Term bonds are those issues of which all bonds run for the same period of time and all mature on the same date, for example $20,000 may be issued May 1, 1925, all to mature on May 1, 1945. Serials mature, not all at the same time, but at intervals, in accordance with some schedule which will retire the whole issue, a few bonds at a time. For instance, a $20,000 issue put out in 1925 may be scheduled to mature $1,000 per year from 1926 to 1945.

sider the future interests of their respective counties as well as the immediate demands.

School Bonds

Slightly over half of the $54,000,000 of school bonds outstanding are on town and city schools, and most of the rest on consolidated schools. The bonded indebtedness of rural independent schools is relatively trifling. Table XV shows that the interest payments on school bonds for the whole state in 1931 amounted to approximately $2,500,000 and payments on principal to $2,400,000.

TABLE XV. SCHOOL BONDS, PAYMENTS ON INTEREST AND PRINCIPAL
July 1, 1931—June 30, 1932

	Interest payments	Payments on principal	No. districts studied		No. districts in state (1929-30)
			Total No.	No. with schoolhouse fund levies	
Ten Counties					
Cities and towns	$ 211,208	$ 173,074	62	47	652
Consolidated districts	138,699	152,506	65	59	402
Rural independent and school townships	4,726	12,734	467	55	3,817
Total	354,633	338,314			
Total state	$2,546,875	$2,410,121[1]			

[1]Total bonds retired minus refunding issues.

Table XV shows that the combined debt service, including interests and payments on principal, for 59 consolidated schools averaged $4,936 per school. For 45 towns, omitting Cedar Rapids and Council Bluffs, it averaged $5,227. In each case the average debt service is approximately equal to the salaries of five teachers in the elementary grades.

There was a strong sentiment in favor of consolidation about the beginning of the war. A little later the war-time and post-war inflation encouraged further consolidations. Out of 402 consolidated districts 150 were formed in the years 1914 to 1916, and 128 were formed in 1919 and 1920.*

There has also been a tendency to put up new buildings during periods of business activity when the voters felt favorably dis-

*Data derived from a bulletin by H .E. Stone of the State Department of Public Instruction, 1926.

posed towards public improvements. It is interesting to note that in the 10 counties in which the special study was made, the largest numbers of bonds were issued in 1916, 1919, 1923, 1926, and 1930. These were all years of active business or of business recovery except 1930, which was a year just following a period of business activity.

Unfortunately, the primary concern of some of the school boards seemed to be to postpone the heavier payments as long as possible rather than to adopt a plan for prompt payment with a minimum ultimate burden. In one case which will serve as an example, a consolidated schoolhouse was erected in 1920 and was paid for by the issuance of $90,000 of bonds. Payments on this principal were scheduled to begin in 1936, 16 years later, at the rate of $5,000 per year and to continue at this rate until 1945, when the remaining $45,000 was scheduled to be paid, or more likely refunded. In this case and in a number of others like it, the attitude seemed to be to let the future school boards do the worrying.

The law at present requires that a schedule of payments be adopted which will retire an issue of bonds in not more than 20 years. This law is evaded in a large number of cases. The most common means of evasion is to make the final installment so large that it will be necessary to refund it. Table XVI shows that about one-fourth of the school bond issues studied were of this type. Another fourth of the school bonds are the still outstanding term bonds. These are issues which fall due at a single date instead of being distributed over a period of years.

There are two generally desirable forms of schedules for the retirement of bond issues. One of these is by means of equal annual payments which will completely extinguish the debt. As the years pass, the annual interest payments become smaller because of the retirement of bonds. Consequently, the total annual payments decline by the reduction in interest. Table XVI shows that $1,294,000 of the $7,480,000 of bonds examined were of this type.

A more popular type provides that annual payments on principal shall increase approximately as fast as the interest payments decline. The bonds of this type in table XVI amount to $1,905,000. Where the school board was intent on postponing

payments as long as possible, it was often arranged that principal payments should be small at first and should increase at a rate faster than interest payments declined. Out of the $7,480,000 in table XVI $508,000 were of this type, and an added $456,000 had rapidly increasing annual payments and large terminal payments as well.

TABLE XVI. TYPES OF SCHOOL BONDS IN TEN SELECTED COUNTIES

	Bonds outstanding
Term bonds	$1,975,703
Serial bonds with annual payments extinguishing the issue:	
Equal annual payments	1,294,050
Payments increase as interest declines	1,904,800
Payments increase faster than interest declines	508,000
Serial bonds with a large final payment:	
Equal annual payments	574,100
Payments increase as interest declines	768,000
Payments increase faster than interest declines	456,000
Total	$7,480,653

How long may we expect the present load of debt to run and will it become lighter or heavier from year to year? Table XVII shows that the payments on serial bonds in the 10 counties are scheduled to increase somewhat for the next three years and thereafter to decline gradually until they are all retired about 1950. The number of issues of term bonds studied was too small to give any definite trend. But it is clear that they will be maturing from time to time until 1946. Of course, some of these issues will be paid off, at least in part. Others will have to be refunded for a further period.

The above statement is true for the school systems of the 10 counties as a whole. But each district is a problem in itself. Some are already out of debt. Others are carrying extremely heavy loads, which it will take 20 or more years to get rid of.

Can the Public Debt Burden Be Reduced?

The ultimate reduction in an annual debt service is, of course, accomplished by paying it off. But when the debt concerned is as large as the quarter billion dollars owed by the various governmental units of Iowa, this requires a period of years. The question in the meantime is how rapidly the debts can be

TABLE XVII. SCHEDULED MATURITIES OF SCHOOL BONDS IN TEN COUNTIES

Year	Serial bonds	Term bonds (a)
1933	$ 297,885	$ 12,903
1934	313,510	108,000
1935	355,860	242,000
1936	337,260	337,500
1937	324,060	95,600
1938	310,060	103,000
1939	285,060	264,500
1940	291,710	607,000
1941	271,210	15,000
1942	293,310	313,700
1943	234,260	480,100
1944	212,035	227,250
1945	177,910	268,000
1946	106,410	182,900
1947	83,110	.....
1948	70,610	.....
1949	62,110	.....
1950	45,110	.....
1951	110	.....
Total (b)	$4,071,590	$ 3,257,453

(a) Term bond maturities plus final installment on serial bonds where the final installment is greatly in excess of earlier payments.

(b) These totals do not quite equal the total school bonds for the 10 counties as given in tables XVI and XVIII, since it was not possible to get the schedule of maturities for every issue.

reduced without current payments requiring excessive sacrifices on the part of the taxpayers. In periods of economic emergency as at present, it is even desirable to refund some obligations in the expectation that smaller social sacrifices will be involved in paying them later. This policy should be followed with considerable caution, however, because it makes the future burden heavier as well as reducing the present one.

A second possible way to lighten the debt burden is by getting the most favorable interest rates possible. Table XVIII shows that 4½ percent is the most common rate of interest on primary road bonds and also on school bonds, while 5 percent is the most common on county bonds. In the case of the county debt, however, there is also a large volume of 6 percent bonds. In the case of the school debt there are about four-fifths as many bonds paying 5 percent as 4½ percent.

To the casual reader these may sound like favorable interest rates. But it should be remembered that these are public and not private debts and that the bonds are tax free. These are, however, similar to rates on debts incurred in the same years in other states.

TABLE XVIII. VARIATION IN INTEREST RATES

Rate	Amounts outstanding			
	Whole State		Ten counties	
	Primary road bond	County bonds(a)	County bonds	School bonds
4%	$ 5,749,000	$ 1,449,000	$ 70,000	$ 59,000
4¼%	24,724,500	3,721,000	460,000	1,193,500
4½%	32,078,000	3,615,000	1,205,500	2,736,200
4¾%	14,032,000	1,254,000	822,000	1,435,800
5%	19,479,500	7,829,000	521,500	2,056,153
5¼%	.....	152,000	.....	.....
5½%	.....	1,358,000	.....	.....
5¾%	.....	344,000	.....	.....
6%	.....	5,031,000	609,540	.....
Total	$ 96,063,000	$ 24,753,000	$ 3,688,540	$ 7,480,653

(a) Approximate—figures adjusted from Moody's Manual of Governments.

Iowa has enjoyed a relateively favorable credit rating which has made it rather easy to obtain funds for public uses at reasonable rates of interest. It may not be amiss to remark here that this high credit rating can be maintained only by meeting obligations promptly. A few defaults would be likely to prove highly expensive in future interest rates to the districts concerned and to others as well.

Assuming that the favorable credit rating can be maintained, it will probably prove possible to reduce the present rates on bonds that can be called or refunded. At the end of a business depression such as the present there is generally a period of low interest rates. Little new capital is demanded because existing industrial and other plants are more than sufficient for present needs. At the same time the saving of new capital continues because people are more than ordinarily frugal during and after a serious depression.

It has already been said that relatively few school or county bonds are callable, but that all primary road bonds are of this type. The importance of this feature in the near future may be realized when it is said that, if it proved possible to refund the primary road bonds at 4 percent, this would mean a saving to the state of approximately a half million dollars per year. And if they could be refunded at 3¾ percent it would save another quarter of a million.

Of course it is not possible to change the terms of bonds already issued. But all public officials concerned with the pay-

ments of public debts should familiarize themselves thoroughly with the provisions of bonds of their respective administrative units so that they will be prepared to take advantage of any optional or other similar features.

Now that the primary road bonds have proved salable with an optional feature, it would be highly desirable for this provision of the law to be extended to the other public bonds of Iowa.

It would be very desirable for most counties or school districts to obtain the advice of experienced and competent persons in addition to the representatives of the bond houses before a contract is let for the issuance of bonds. It would be possible for some one of the existing state offices to provide such advice and for the law to require that the issue meet the approval of such an authority before it is sold.

It is possible that lower rates might be obtained on new school bonds if a guarantee fund were created by the state and the issuing districts were required to contribute a small percentage of the sums involved to insure the payment of such issues.

The public debt is an important item in the cost of government, and public officials and taxpayers can well afford to concern themselves over the question when to follow a "pay as you go" policy. When it is decided to borrow, careful attention should be given to the terms under which a debt is incurred.

APPENDIX

Tax Information in the Farmer's Tax Receipt

The farmer's tax receipt merits more study than it is often given. It contains valuable information regarding the burden which the various governmental functions place on real estate and personal property. This burden and the cost of carrying it may be better understood if the farmer will determine for himself the approximate proportion of his total property tax which will be used by each branch of the government, state, county and local, and if he can see the uses which will be made of the funds allotted to each branch.

As an example, we give below a statement drawn from the tax receipts of two farmers living in the same Iowa county but in different taxing districts, on farms of nearly the same size. It will be noted that the share paid to the state government

ranged from 15 percent on farm A to 9 percent on farm B. In the same way the funds going to the county were 48 percent on farm A and only 29 percent on farm B. On farm A there was no payment for schoolhouse while on B this amounted to $46.

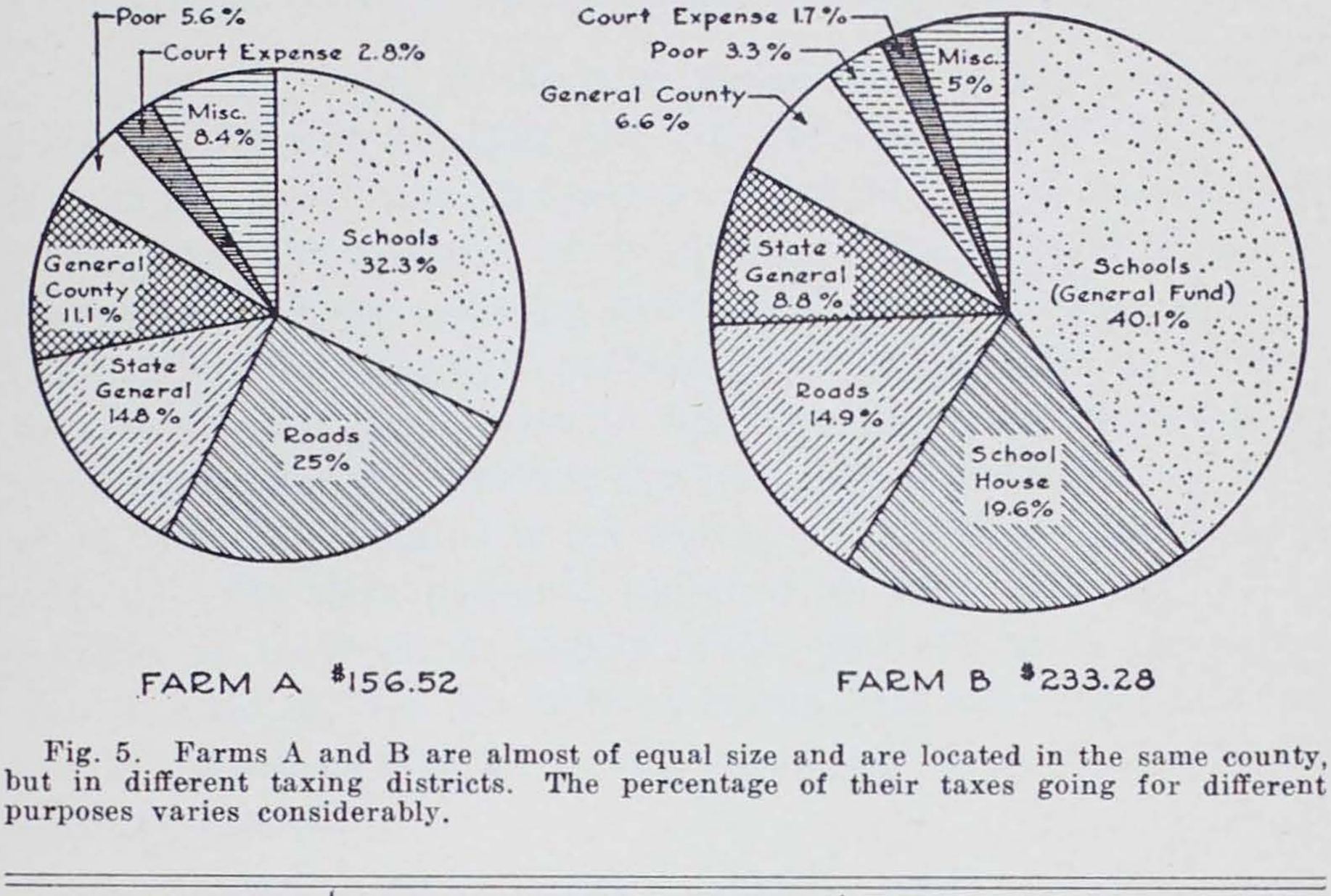

Fig. 5. Farms A and B are almost of equal size and are located in the same county, but in different taxing districts. The percentage of their taxes going for different purposes varies considerably.

	Farm A			Farm B		
	Millage	Total taxes paid	Per-cent	Millage	Total taxes paid	Per-cent
State general	8.0	$ 23.20	14.82	8.0	$ 20.53	8.8
Soldiers' bonus	1.0	2.91	1.86	1.0	2.57	1.1
General county	6.0	17.37	11.1	6.0	15.40	6.6
Poor	3.0	8.77	5.6	3.0	7.70	3.3
County and state insane	1.0	2.91	1.86	1.0	2.57	1.1
County schools	1.0	2.91	1.86	1.0	2.57	1.1
County bond	.....	.....	.....	.....	.....	.....
Soldiers' relief	.....	.....	.....	.....	.....	.....
Court expense	1.5	4.38	2.8	1.5	3.96	1.7
County hospital	.....	.....	.....	.....	.....	.....
T. B. eradication	.....	.....	.....	.....	.....	.....
Roads (Total)	13.5	39.13	25.0	13.5	34.76	14.9
Schoolhouse	.....	.....	.....	17.8	45.72	19.6
Schools	17.4	50.56	32.3	36.4	93.54	40.1
Miscellaneous	1.5	4.38	2.8	1.5	3.96	1.7
Total per farm	53.9	$156.52	100.0	90.7	$233.28	100.0

CHAPTER FOUR—JANUARY, 1933

The Iowa Farm Mortgage Problem

By William G. Murray and Ronald C. Bentley

FARM MORTGAGE DEBT THEN AND NOW

On Dec. 31, 1889, the farm mortgage debt in Iowa was $149,457,000.[1] On Oct. 15, 1932, the debt stood at $1,082,882,000. Although prices of farm products were practically the same in both years,[2] the debt was over seven times as large in 1932. This contrast sets forth the pressing problem of farm mortgage debts.

In order to see the debt problem in its proper light, it is necessary to review the changes in the farm mortgage situation for some years back. To provide this perspective, a survey was made of 13 townships located in six widely separated counties in Iowa (fig. 6). The data gathered included all farm mortgage transactions, as recorded in county offices, pertaining to the period Jan. 1, 1915, to Oct. 15, 1932. Various tests have indicated that the 13 townships selected in this study are representative of the state as a whole.

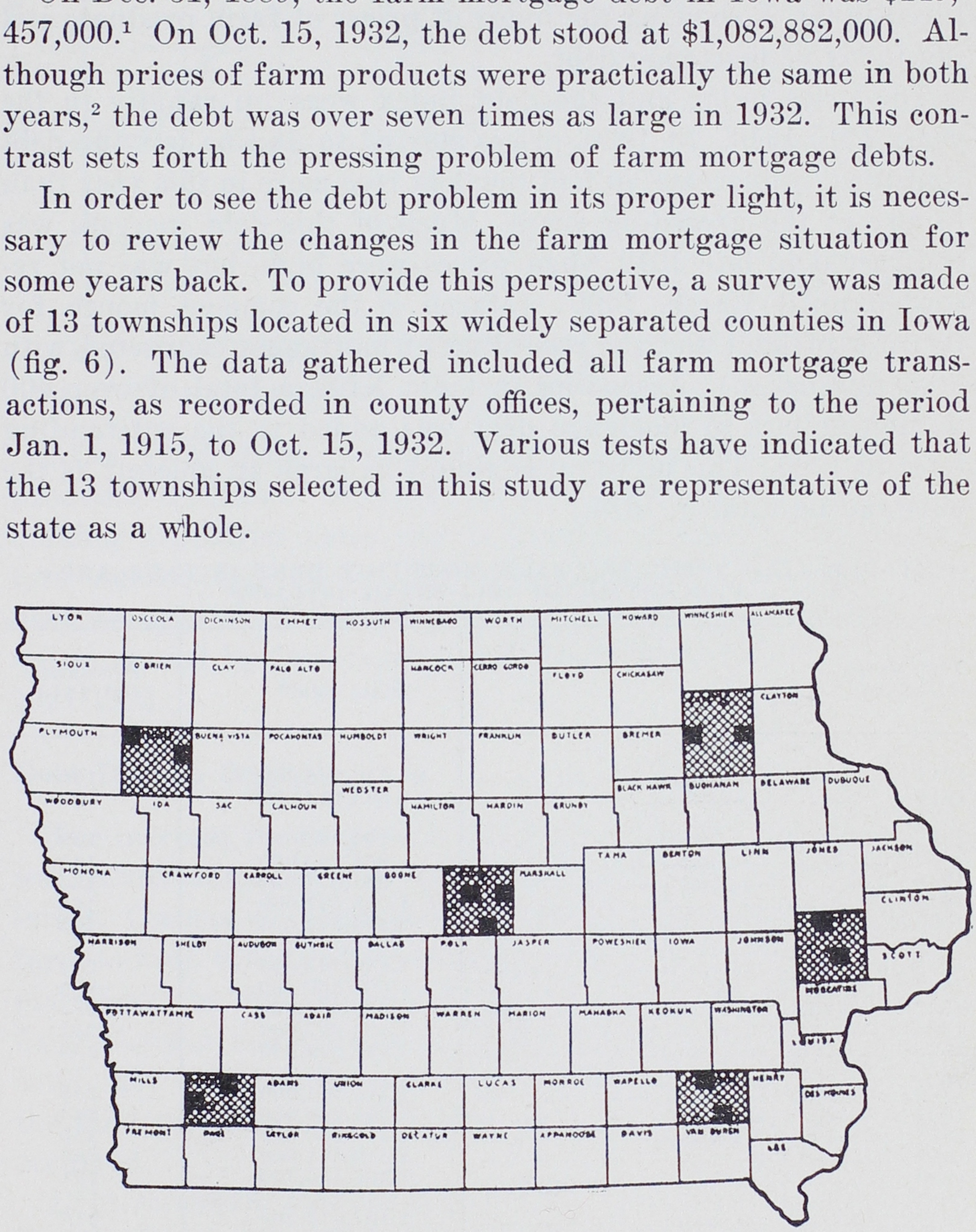

Fig. 6. Thirteen townships were included in the farm mortgage survey.

OUTSTANDING MORTGAGE DEBT

Debt Burden Increases

The ease with which the farm mortgage debt was increased with rising prices for farm products, and the difficulty which was experienced in reducing the debt with falling prices, constitute the outstanding characteristics of the last 18 years. This is pictured in fig. 7, showing the index of prices of farm products and the index of mortgage debt.

The price index and the debt index went up rapidly in the years 1915-1919. In 1920, prices started to decline but the debt continued to increase, in fact the debt rose more in this year than in any of the preceding years. Much of this debt increase was contracted in late 1919 when prices were high, but was not recorded until March, 1920. (March is the common month for transfer of land and the recording of mortgages connected with land purchases.) According to table XIX, a total of over 400 million dollars in mortgage debt was added to the outstanding total in 1920. This addition is almost as large an amount as the outstanding total in 1914.

TABLE XIX. ESTIMATED FARM MORTGAGE DEBT IN IOWA AND PERCENTAGE OF 1914 TOTAL, 1914-1932[3]

Year as of Dec. 31	State total*	Percentage of 1914
1914	$ 570,396,000	100
1915	685,114,000	120
1916	760,961,000	133
1917	865,190,000	152
1918	961,071,000	168
1919	1,069,541,000	188
1920	1,499,577,000	263
1921	1,609,744,000	282
1922	1,597,390,000	280
1923	1,618,477,000	284
1924	1,604,907,000	281
1925	1,531,192,000	268
1926	1,470,511,000	258
1927	1,394,246,000	244
1928	1,348,480,000	236
1929	1,310,631,000	230
1930	1,265,456,000	222
1931	1,197,074,000	210
1932**	1,082,882,000	190

*Ratio, value of farm land in 13 townships to value of farm land of state 1:111.
**Oct. 15, 1932.

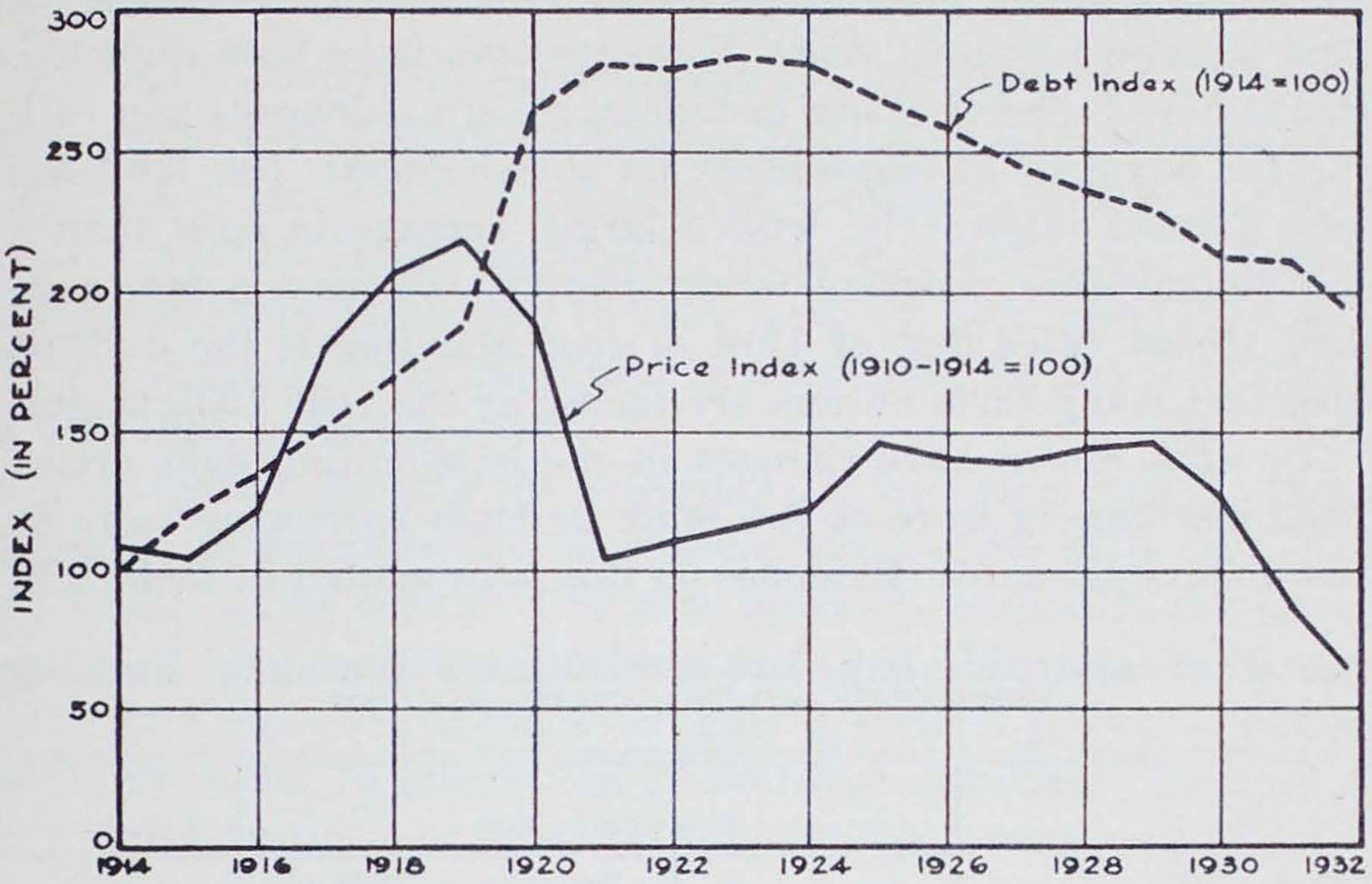

Fig. 7. Indexes of outstanding farm mortgage debt and prices of farm products.

After 1920, debts continued to increase while prices of farm products declined. A good many creditors found themselves holding unsecured notes and to protect themselves these creditors obtained second or third mortgages. The increase in the debt brought about by such mortgages more than offset the decrease caused by foreclosures and other forced sales in the years 1921-1923.

Debt Decline Begins

The increase in the price level of farm product prices in 1925 was insufficient to keep the huge farm mortgage debt of that year intact. Owners of farms had been using up resources outside the farm to keep taxes and interest paid. Furthermore, pressure was placed on the land to make it produce more in order that the fixed charges could be met. Both of these sources of reserve could not last indefinitely. Hence, foreclosure, assignment of the land to the mortgage holder, or a scaling down of the debt occurred.

Debt reduction proceeded gradually from 1925 through 1930. The liquidation that did take place was carried out in individual cases without attracting much attention. A slight improvement in prices kept the majority of mortgages in good standing.

The precipitous drop in prices in 1931 and 1932 brings the debt issue to a critical stage. Cash reserves have been depleted. Banks have failed in many instances, tying up deposits and calling for payment of assessments by stockholders. The land has been farmed intensively, with a larger acreage in corn than a soil maintenance program would justify. To keep a mortgage debt almost twice that of 1914 in good standing is the difficult task that many farm owners are facing as the year 1933 begins.

To what extent have changes in the outstanding debt arisen from mortgaging more or less land, or from borrowing more or less dollars per acre? Evidence on this is presented in table XX.

TABLE XX. MORTGAGE DATA FOR 13 TOWNSHIPS AND DEBT PER ACRE ESTIMATED FOR THE STATE 1915-1932[3]

Year as of Dec. 31	13-township data			Estimated debt per acre of land mortgaged in state*
	Total debt	Percent of land mortgaged	Debt per acre of land mtg.	
1915	$ 6,172,200	38	$ 56	$ 54
1916	6,855,500	39	60	57
1917	7,794,500	42	65	62
1918	8,658,300	42	70	67
1919	9,635,500	42	80	77
1920	13,509,700	47	100	96
1921	14,502,200	48	104	100
1922	14,390,900	49	102	98
1923	14,580,600	50	100	96
1924	14,458,624	51	98	94
1925	13,794,524	50	95	91
1926	13,247,845	50	91	87
1927	12,560,771	49	89	85
1928	12,148,470	49	85	81
1929	11,807,488	49	84	80
1930	11,400,508	48	81	78
1931	10,784,453	48	78	75
1932**	9,755,696	45	74	71

*Ratio, average debt in 13 townships to State average, 116:111.
**October 15, 1932.

What portion of the mortgage debt is owed by owner-operators and what portion by non-operating owners is not accurately known. In the 13-township investigation a 50-50 division of the debt between owner-operated and tenant-operated land is indicated. Although less of the tenant-operated land was mortgaged, that which was mortgaged carried a heavier debt per acre.

PERCENTAGE OF LAND MORTGAGED

In 1914 the land mortgaged constituted 38 percent of all farm land; in 1920, 47 percent. Although the placing of mortgages on 9 percent of the land previously clear increased the debt, the increase from this factor was small. Likewise, the decrease in land mortgaged from 51 percent in 1924 to 45 in 1932, although significant in itself, is not important in accounting for the reduction of debt that occurred.

These figures showing the percentage of land mortgaged in the 13 townships were found to be representative of the state average and hence can be used as a reliable index of changes in the percentage of land mortgaged in Iowa during the 18-year period.

The fact that over one-half the land is clear of mortgage debt merits emphasis. In discussions of mortgage difficulties, the tendency is to forget the situation on farms without mortgages. This is particularly unwise because it leaves the majority of farm owners out of the picture. When consideration turns to owner-operators only, however, a slightly different situation is faced. In this case, the majority have mortgages on their land. According to the Federal Census of 1930, 58 percent of the owner-operators had mortgages outstanding on their land.

DEBT PER ACRE OF MORTGAGED LAND

The debt load on mortgaged farms fluctuated more than the percentage of land covered by mortgages. (Table XX.)

In the 13 townships the average debt in 1914 was $56 an acre and in 1919, $80. In the year 1920, the debt jumped to $100 an acre, a change twice as large as in any other year. The decline which set in after 1921, though it has been slow, has been continuous, bringing the debt per acre down to $74 an acre in 1932. Despite this decrease, however, the debt is still heavier than at the end of 1918, when it was $70 an acre.

State estimates of debt per acre, as shown in table XX, are slightly below the township figures. This follows from the lower value of land and buildings in the state as a whole.

DEBT PER ACRE ON INDIVIDUAL FARMS

A record of land mortgaged and debt per acre fails to indicate the distribution of debt on individual farms. How representative

is the average debt of $104 an acre in 1921 and $74 in 1932? The evidence presented in fig. 8 and table XXI is designed to answer this question specifically.

In 1921 the average debt of $104 was not a typical condition on mortgaged farms. A mortgage of $51 to $75 an acre was more representative. Of significance was the group of 98 farms with a debt of over $200 an acre.

An entirely different situation appears in 1932. At this time the average of $74 comes close to being the typical case. Moreover, in contrast with 1921, the high debt cases have been eliminated and the majority of cases come in the groups, $26 to $100. This is a direct result of the decline in junior mortgages. When a second mortgage was foreclosed, the second mortgage holder taking title, the first mortgage continued in good standing, hence a reduction in debt per acre resulted but the acreage mortgaged remained the same.

TABLE XXI. CLASSIFICATION OF FARMS BY DEBT PER ACRE OF LAND MORTGAGED IN 13 TOWNSHIPS

Debt per acre	Number of farms		Percent	
	Dec. 31, 1921	Oct. 15, 1932	1921	1932
$ 0-$ 25	51	85	4.8	8.3
26- 50	169	234	15.9	22.9
51- 75	224	269	21.1	26.3
76- 100	180	280	16.9	27.4
101- 125	111	68	10.4	6.7
126- 150	111	53	10.4	5.2
151- 175	76	13	7.1	1.3
176- 200	44	5	4.1	.5
201- 225	40	7	3.8	.7
226- 250	23	2	2.2	.2
251 or more	35	5	3.3	.5
Total	1,064	1,021	100%	100%

The small number of farms with a mortgage debt of 0 to $25 is striking. Since half the land was clear of mortgage both in 1921 and 1932, it seems strange that the majority of farms that are mortgaged should be mortgaged for more than $26 per acre. Even in 1932, 69 percent of the farms were mortgaged for more than $50 an acre.

An explanation of this situation is to be found in the large number of land purchase mortgages contracted during the years 1915-1920.

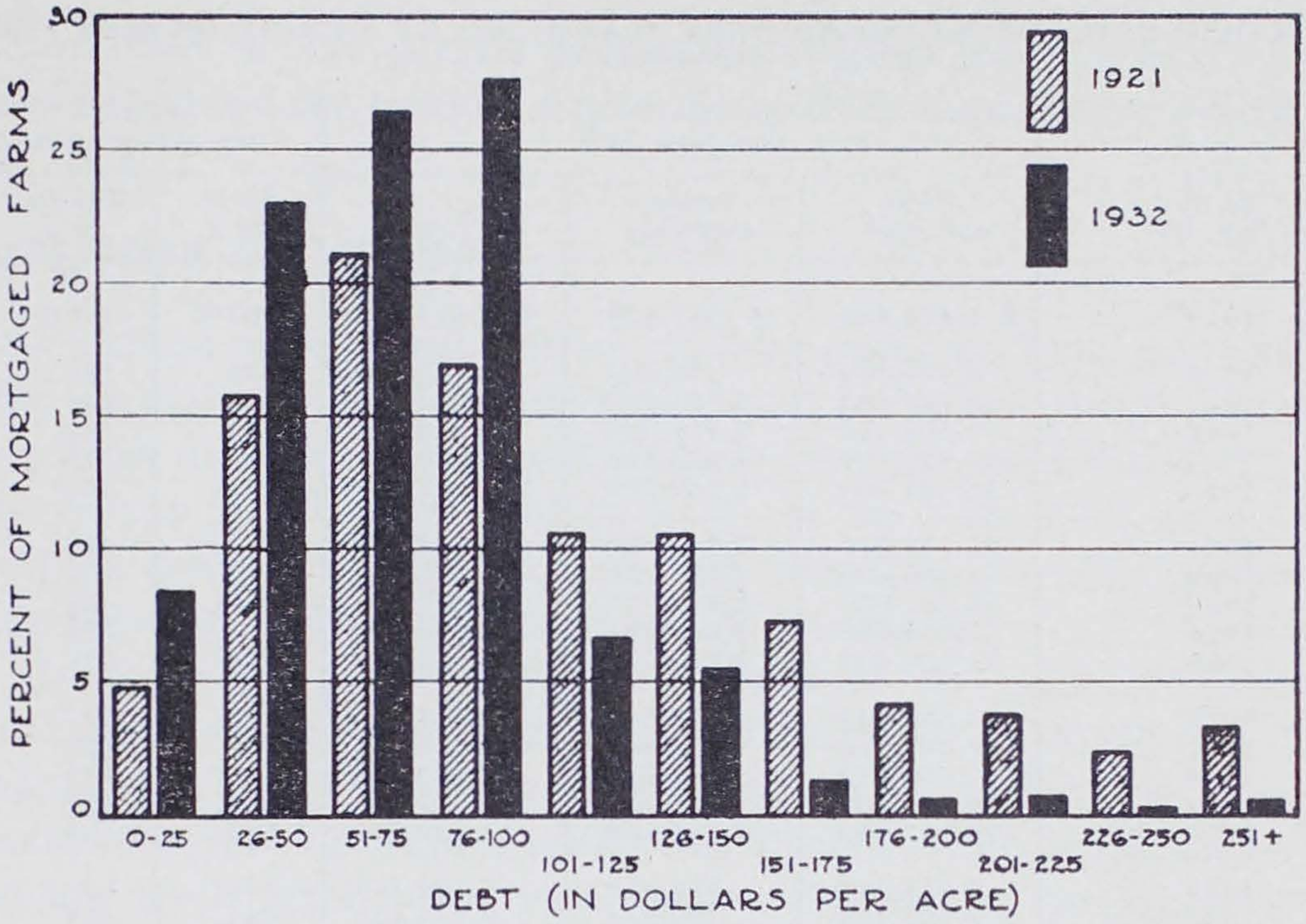

Fig. 8. Classification of farms by debt per acre on Dec. 31, 1921, and Oct. 15, 1932.

FIRST AND JUNIOR MORTGAGE DEBT

Although marked changes have been noted in the total debt, still wider fluctuations are uncovered when the total debt is divided into first and junior mortgages (table XXII). In this case junior mortgages show the most activity. Junior mortgages include second, third and fourth mortgages; in other words, all mortgages not first mortgages. In the years 1915 to 1921, the junior mortgage total increased almost fourfold while first mortgages were doubling. In the succeeding years, junior mortgages declined to a figure only slightly above that of 1915, while first mortgages declined only a relatively small amount. How small this drop in first mortgages has been can be seen by comparing the increase in 1920 with the reduction since 1923. The net rise in the one year 1920 is almost equal to the total reduction taking place in the nine years following 1923. In spite of this nine year reduction, the first mortgage debt on Oct. 15, 1932, was still higher than in 1919. Junior mortgage indebtedness in 1932, on the other hand, was approximately one-half of that in 1919.

Junior mortgages, most of which are second mortgages, gained ground over first mortgages in the early years only to lose all

TABLE XXII. OUTSTANDING DEBT CLASSIFIED BY NATURE OF LIEN FOR THE 13 TOWNSHIPS, 1915-1932

Year as of Dec. 31	Mortgage debt			Percentage of 1915	
	First mortgage	Junior mortgage	Total	First mt'g.	Junior mt'g.
1915	$ 5,476,800	$ 695,400	$ 6,172,200	100%	100%
1916	5,977,000	878,500	6,855,500	109	126
1917	6,789,600	1,004,900	7,794,500	124	145
1918	7,534,300	1,124,000	8,658,300	138	162
1919	8,142,400	1,493,100	9,635,500	149	215
1920	11,141,700	2,368,000	13,509,700	203	341
1921	11,793,200	2,709,000	14,502,200	215	390
1922	11,865,800	2,525,100	14,390,900	217	363
1923	12,201,900	2,378,700	14,580,600	223	342
1924	12,155,700	2,302,924	14,458,624	222	331
1925	11,900,600	1,893,924	13,794,524	217	272
1926	11,530,964	1,716,881	13,247,845	211	247
1927	11,087,914	1,472,857	12,560,771	202	212
1928	10,859,619	1,288,851	12,148,470	198	185
1929	10,713,467	1,094,021	11,807,488	196	157
1930	10,357,400	1,043,108	11,400,508	189	150
1931	9,864,001	920,452	10,784,453	180	132
1932*	8,982,452	773,244	9,755,696	164	111

*Oct. 15, 1932.

that was gained and more in the years that followed. In 1915 junior loans comprised 11 percent of all loans. By 1921, the percentage had risen to 19. When it is considered that second mortgages are generally smaller in amount than first mortgages, it is evident that in 1920 second mortgage financing had assumed an important place as a means of obtaining credit on land. In 1932, however, the tables were reversed. At this time, junior mortgages could claim scarcely 8 percent of the total outstanding. Moreover, at the rate the junior loans were being reduced, their disappearance would only be a matter of 6 or 7 years.

Transition to First Mortgage Liquidation

While the decade, 1921-1930, was the period of junior mortgage liquidation, the decade starting with 1931 appears to be headed toward a liquidation of first mortgage debt. Evidence of this is furnished by the record of debt reduction in 1932, amounting to $882,000 of first mortgages in the 13 townships, and an estimate of $98,000,000 of first mortgages for the state. Even at the rate of reduction established in 1932, however, four years would be required to bring the first mortgage total down to that of 1915.

In addition to this, it must be remembered that the debt of 1915 was supported by a much higher price level than that existing in 1932.

PURPOSE OF LOANS

Purchase of land and renewal of land purchase loans account for the majority of mortgage loans in all but a few years. As is set forth in table XXIII, land purchase was the chief reason for borrowing in the years 1915 to 1920. In the year 1920, over 4 million dollars of mortgage credit was borrowed directly for the purchase of land mortgaged in the 13 townships.

In the years following 1920, renewal of the land purchase mortgages originating in the 1915-20 period assumed the dominant role. This was a natural consequence of the fact that the common term of mortgage is and was 5 years. With farm income at low levels after 1920, little opportunity existed to pay off a mortgage in 5 years. As a consequence, the majority of the land purchase mortgages given in the years 1917-20 were renewed or extended in the decade 1921-30.

TABLE XXIII. NEW LOANS CLASSIFIED BY PURPOSE IN 13 TOWNSHIPS, 1915-1932

Year	Land purchase	Renewal land purchase	Miscellaneous	Total
1915	$ 845,800	$ 364,000	$ 558,900	$1,768,700
1916	899,400	639,900	383,900	1,922,300
1917	1,156,300	848,600	546,600	2,551,500
1918	1,356,100	366,400	298,100	2,020,600
1919	1,444,300	406,600	317,700	2,168,600
1920	4,111,800	683,100	894,500	5,689,400
1921	695,800	848,900	1,002,200	2,546,900
1922	249,000	1,197,000	651,200	2,097,200
1923	403,500	1,501,000	834,200	2,738,700
1924	343,700	919,100	746,524	2,009,324
1925	389,700	1,192,400	468,000	2,050,100
1926	434,521	738,771	645,066	1,818,358
1927	513,000	466,487	354,070	1,333,557
1928	233,300	701,250	748,177	1,682,727
1929	153,050	383,410	555,465	1,091,925
1930	154,294	502,200	521,657	1,178,151
1931	124,800	316,005	541,622	982,427
1932*	57,970	146,273	223,576	427,819

*To Oct. 15, 1932.

The debt problem of 1933, therefore, can be traced directly to the land purchase activity of the 1917-20 period. In these years prices of farm products were moving up rapidly. This, in turn, brought increased returns from farming because costs did not rise as rapidly as prices. Larger profits stimulated a demand for land, resulting in higher prices for land. Frequent purchases of high priced land led to larger mortgages to complete the transactions. This, in short, was the cause of the mortgage debt increase.

FORCED SALES AND DEBT REDUCTION

While the purchase of land accounted for the major portion of the debt increase in the period 1915-20, forced sales and renewal mortgages are the chief reasons for payment of mortgages in the years of debt decline, 1922-32 (table XXIV). Forced sales, including foreclosure of mortgages and assignment of land to mortgage holders, did not enter the picture until 1922. Even then they did not bulk large until 1926 and 1927. This may seem peculiar because prices of farm products had recovered somewhat in these later years from the low level of 1921-22. The explanation lies in the fact that owners of heavily mortgaged

TABLE XXIV. LOANS PAID, CLASSIFIED BY REASON FOR PAYMENT, 13 TOWNSHIPS, 1915-1932

Year	Renewal	Sale of land	Forced sales	Misc.	Total
1915	$ 494,300	$ 83,600	$ 2,400	$154,900	$ 735,200
1916	770,900	281,800	----------	186,300	1,239,000
1917	952,100	369,700	2,000	288,700	1,612,500
1918	475,400	369,300	800	311,400	1,156,900
1919	592,900	361,600	3,600	233,300	1,191,400
1920	743,100	624,100	----------	447,600	1,814,800
1921	947,800	221,300	77,100	308,200	1,554,400
1922	1,465,200	209,700	331,300	202,300	2,208,500
1923	1,610,800	333,100	228,700	326,400	2,553,000
1924	1,250,300	314,900	307,200	258,800	2,131,200
1925	1,546,500	341,800	371,100	454,900	2,714,300
1926	932,950	113,900	909,064	408,723	2,364,637
1927	618,672	79,552	782,571	539,836	2,020,631
1928	1,253,645	33,344	431,474	366,342	2,084,805
1929	729,231	71,125	265,643	374,908	1,440,907
1930	753,453	97,500	358,696	367,482	1,577,131
1931	619,496	33,670	629,824	315,492	1,598,482
1932*	251,561	74,000	959,135	157,280	1,435,682

*To Oct. 15, 1932.

land held on as long as they could by using all available resources. But with the failure of prices to return to the 1919 level, liquidation through foreclosure or assignment was inevitable. Cases of this kind were out of the way in 1928 and 1929 so that with a slight improvement in prices, few forced sales were registered. With the price drop in 1931 and 1932, forced sales shot up again reaching in 1932 the largest total on record. This recent price decline has been so drastic it has started to affect first mortgages. Previous to 1931 forced sales were restricted principally to junior mortgages.

TABLE XXV. CLASSIFICATION OF FORCED SALES IN 13 TOWNSHIPS, 1928-1932

Year	Foreclosure	Cancelled by foreclosure of prior lien	Assignments too mortgage holders	Total
1928	$261,482	$74,992	$ 95,000	$431,474
1929	120,745	36,235	108,663	265,643
1930	91,000	37,396	230,300	358,696
1931	234,136	67,118	338,570	629,824
1932	454,841	77,094	427,200	959,135

Mortgages are cancelled through forced sales generally in three ways. The first method is by foreclosure of the mortgage in question, the second by a junior mortgage holder failing to redeem when a prior mortgage is foreclosed, and the third by the assignment of the land to the holder of the mortgage. A classification of forced sales for the last 5 years by these three methods shows foreclosures and assignments as of equal importance (table XXV). The total of junior mortgage cancellations through foreclosure of prior liens is not a large item in any one of the 5 years, although it does explain a small part of the debt reduction.

DISTRIBUTION OF DEBT BY LENDERS

In any consideration of policy respecting mortgage debt, the distribution of the total among the various lenders is a matter of prime importance. This follows particularly because lenders differ in their method of handling delinquent loans. An insurance company, for instance, has an entirely different financial setup than that of a deposit bank; and both of these institutions are as foreign to the federal land bank as they are to each other.

Insurance companies on Oct. 15, 1932, were the largest holders of farm mortgages in the state with 42 percent of the total, according to the 13-township figures. This percentage represents 450 million dollars of the total estimated for the state (see table XIX). On December 31, 1931, the estimated amount on the basis of the 13 townships was 481 million dollars, a close approximation to the total of 476 million obtained for that date by adding together the reports of all insurance companies.

TABLE XXVI. PERCENTAGE DISTRIBUTION OF OUTSTANDING DEBT BY LENDERS, 13 TOWNSHIPS

Year as of Dec. 31	Private investors	Insurance companies	Deposit banks	Mt'g. co. Misc.	Land banks	Total
1915	54	22	20	4	0	100%
1920	61	20	14	3	2	100
1925	43	32	15	3	7	100
1930	32	39	15	2	12	100
1932*	27	42	16	3	12	100

*To. Oct. 15, 1932.

Private investors come second to insurance companies with 27 percent, or approximately 299 million dollars of outstanding mortgages on Oct. 15, 1932. Deposit banks, according to the 13-township study, are third in the list of lenders with 16 percent or 171 million dollars of the outstanding total for 1932.

Land banks held 12 percent of the loans in the 13 townships as of Oct. 15, 1932. This percentage when applied to the state gives a total of $132,000,000, an amount probably slightly under the actual figure for the state because the Federal Farm Loan Board reported outstanding loans on Dec. 31, 1931, of $157,549,-444.[4] On the same date, the estimate based on the 13 townships was $146,043,000.

The comparatively large amount of mortgages held by private investors and deposit banks deserves special mention because little has been known concerning the holdings of these lenders. Together these two groups of lenders at the close of 1932 account for over 40 percent of the mortgages outstanding in the state. Obviously, therefore, any remedial measures dealing with the

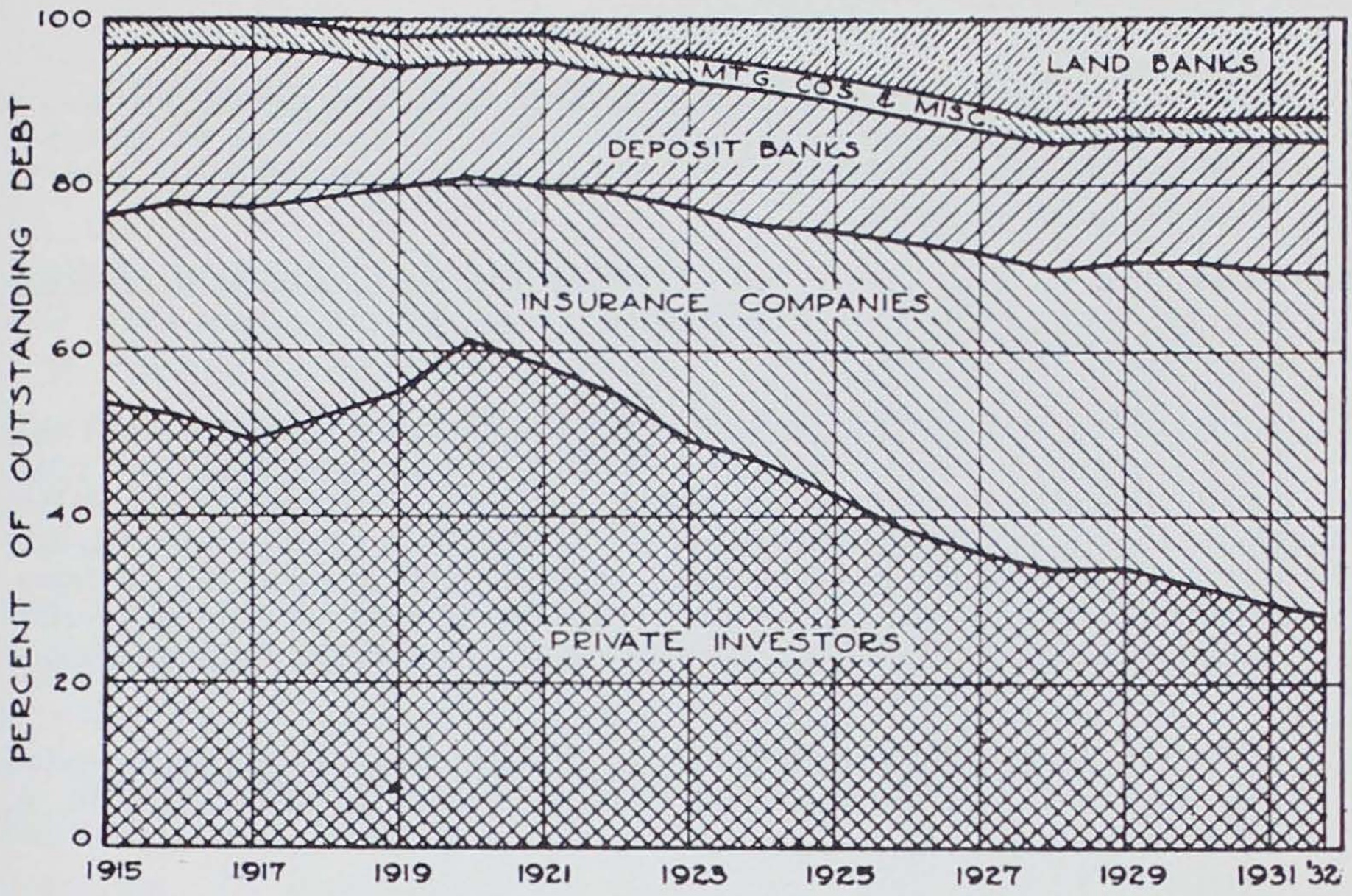

Fig. 9. Percentage distribution of debt by lenders for the 13 townships (1915 to Oct. 15, 1932).

mortgage situation should include, besides the insurance companies and land banks, these other two important groups of lenders.

An indication of the changes in position of lenders is furnished by fig. 9 and table XXVI. These show for the last 10 years a declining percentage of mortgages in the hands of private investors and an increasing proportion being held by insurance companies and land banks. Deposit banks and mortgage companies show little change in the same period. A fact clearly set forth is that private investors furnished the major portion of the huge increase in the mortgage debt which took place in the years 1915-1920. When these original land purchase loans came due anywhere from 3 to 10 years later, insurance companies and land banks were on the scene to make the renewal loans.

SOURCES OF DATA

1. Holmes, George K., and Lord, John S. Report on Real Estate Mortgages at the Eleventh Census: 1890. Census Office, Department of Interior, Washington, D. C. 1895, p. 729. Total reported includes all debt in force on acres in Iowa.

2. Blackburn, D. W. The Trend of Prices for Farm Products in Story County, Iowa, 1870-1930. Unpublished Thesis, Library, Iowa State College, Ames, Iowa, 1931.

3. In obtaining state estimates, figures for the 13 townships were used as a base. Although the six counties including the 13 townships had practically the same proportion of tenants to owner operators as the entire state, the value of land and buildings in the 13 townships was slightly above the state average. The ratio of farm land area in the 13 townships to that in the state as a whole is 1:116; of value of land and buildings on farms, 1:111. State figures were taken from Federal Census of 1930.

4. Fifteenth Annual Report of the Federal Farm Loan Board, year ended Dec. 31, 1931, 72d Congress, 1st Session, House Document No. 36, p. 127.

CHAPTER FIVE——MARCH, 1933

Farm Mortgage Foreclosures

By William G. Murray and Ronald C. Bentley.

FORECLOSURES COMMON

A diagnosis of the foreclosure situation reveals low prices for farm products and a large debt as the salient facts contributing to the present crisis. This much is clear. Not so clear is the long struggle waged in the last 12 years by farm owners and their creditors against inadequate farm income.

Foreclosures and deficiency judgments have been a common occurrence in Iowa since 1921. In the last 12 years 13 percent of the farm land in Iowa has been sold by sheriffs at foreclosure sales. This is indicated by a study of all foreclosures in 15 counties. In some cases the same farm has been sold twice or even three times in the 12-year period. When a deduction is made so as to count these farms only once there still remains 11 percent of the state which has been affected by foreclosures. In other words, one out of every nine farms in Iowa has been sold one or more times by the sheriff in the period 1921-32. Deficiency judgments have been common likewise; over 52 percent of all foreclosures since 1920 have resulted in a deficiency judgment against the farm owner.

Mortgages totaling 327 million dollars have been cancelled by foreclosure action in Iowa in the years 1921-32. An amount almost equally as large has been cut out by assignments of land to mortgage holders and by the failure of junior mortgage holders to redeem the land after the foreclosure of a prior lien. At the end of 1932, however, 1 billion dollars of farm mortgage debt is still outstanding on 45 percent of the farm land in the state.

Coming as it does after 12 years of financial difficulties, the present impasse constitutes a crisis of serious proportions. Reserves are exhausted and prices of farm products are near the lowest levels of the state's history.

First Mortgage Difficulties

To some the problem is merely one of liquidating second and third mortgages originating in the land boom. Careful study, however, of the developments since the intense land sale activity of 1919-20 leads to a different conclusion. The majority of the second and third mortgages contracted during the high land value years were cancelled in the period 1921-30. Since 1930, mortgages in default have been chiefly first liens, held by conservative lending institutions. Although many of these loans arose out of land purchase transactions in the World War decade, they were not considered excessive during the years 1921-30. In fact, lending agencies competed with each other to make first mortgage loans in these years.

The extent to which conservative investors are involved is indicated by the recent increase in first mortgage foreclosures by insurance companies and land banks. Insurance companies loaned as high as $100 an acre on high-grade land during the period 1921-29. These loans were restricted by the policy of the companies and by legal provisions to first mortgages representing not more than 50 percent of the value of the land. Federal and joint stock land banks were similarly restricted and were also lending $100 an acre in the same years on the best land—land which by these loans was valued at $200. Moreover, these agencies were not merely holding a constant amount of such mortgages, they were taking on more. Outstanding farm mortgage loans of insurance companies and land banks in Iowa rose from $386,000,000 in 1921 to $660,000,000 in 1929.

The 90's and 1932-33 Compared

The distinctive features of the present debt problem are brought into full view by a comparison of the depression in the nineties with that at present. Let us look, therefore, at debts and the ability of the farmer to meet them in the two periods.

In the depression of the nineties, $14 to $16 was the average debt per acre on mortgaged land (see fig. 10). In October, 1932, the debt stood at $71 an acre on mortgaged land.

With the debt situation clearly in mind, let us examine the ability of the farmer to meet his obligations. If income figures were available for the two periods, no difficulty would be encountered in clearing up this point. It is well known that taxes were lower in the early period and that production was smaller, but no income figures are to be had. Therefore, it will be necessary to fall back on prices of farm products as the best means of measuring the farmer's ability to meet financial obligations.

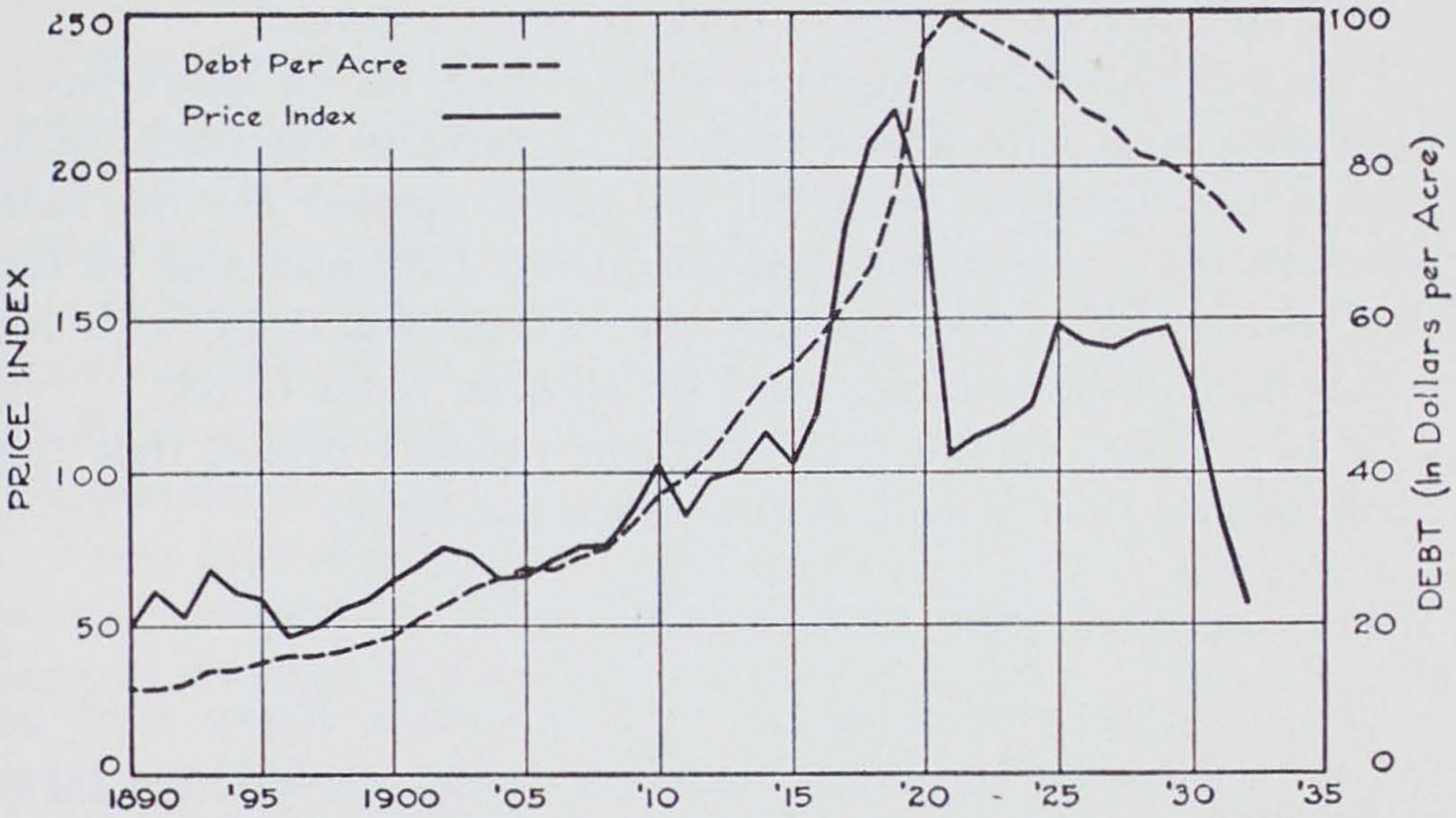

Fig. 10. Debt per acre of land mortgaged and price index of farm products, 1890-1932. (1890-1914, Story County data; 1915-1932 data for state as a whole.)

Hogs constituted the major source of income in both periods. An average of $3.95 a hundred was received for hogs in central Iowa for the years 1890-99. The low years were 1896-97 with average prices of $2.95 and $3.20, respectively. The high years of the decade were 1892-93 with prices at $4.50 and $5.80. In 1932, on the other hand, the average price of hogs was $3.20. For January, 1933, farmers received only $2.40. This is lower than in any month during the nineties.

Cattle, next to hogs in importance, sold lower in the nineties than in recent months. The average price for the nineties was $3.15. This is low compared with the average of $4.90 in 1932. Evil days have finally fallen upon cattle prices, however, for the February, 1933, price was only $3.90.

Corn, like hogs, held a better position in the nineties than at present. In the nineties an average of 26 cents a bushel was

received for corn. In 1897 the price paid averaged only 15 cents and in 1892 an average of 42 cents was paid at local shipping points. Although the average price was 23 cents during 1932, in February, 1933, shelled corn brought only 12 cents a bushel.

In the case of butter, a similarity with cattle can be observed. During the nineties butter brought an average of 15 cents a pound. The year 1890 was low with a price of 9 cents, 1892 and 1894 were the high years with butter at 18 cents a pound. During 1932, on the other hand, butter brought 20 cents a pound and during February, 1933, 18 cents a pound.

Prices for all farm products during 1932, on an index basis, were on a level with prices received by farmers for their products in the nineties. With 100 the index number for the base years 1910-14, prices averaged 56 during 1932 and also 56 for the nineties. The low year in the decade was 1897 with an index of 46, and the high year 1893 with an index of 68.

It is evident, on the basis of farm product prices, that the farm debt in 1933 is at least four times too large.

What Happened from 1900 to 1920

The question now arises as to how such a heavy debt as $71 an acre was ever incurred against nearly one-half the farm land. What happened between the nineties and 1933 is shown in detail in fig. 10. Prices of farm products from 1900 to 1919 climbed almost without interruption and at a steadily increasing pace. Only 4 out of the 19 years showed a lower index than the year preceding. While this was taking place, farm income was rising and the value of land was being pushed up. Each year the farms bought with mortgage credit were mortgaged for more dollars per acre than in the preceding year. In fig. 10, the two curves, prices of farm products and debt per acre of land mortgaged, rise together. The period 1900-19, therefore, witnessed the conversion of land value increases into mortgage debts.

What took place following the price recession in 1920, as well as in previous depressions, is best presented by a record of farm-mortgage foreclosures.

Foreclosures in the Past

Foreclosures were frequent in the years 1858-60 because farm owners had assumed mortgages in the boom year 1857 which they couldn't meet during the depression years that followed*. So intense was the agitation at this time for relief that the state legislature passed a bill which became a law in March, 1860, allowing 9 months' time between notice of foreclosure and action by the court. This act continued in effect until Jan. 1, 1861.

Other waves of foreclosures came with low prices in the seventies and late eighties. No action was taken by the state legislature in either of these instances, however. In the middle nineties prices declined again, but foreclosures were not a serious problem. This is explained by the fact that prices of farm products during the preceding years had not been high. Consequently, the mortgage debt load was not heavy enough to cause widespread defaults.

From 1900 through 1920, foreclosures of farm mortgages were almost unheard of. What cases did come before the courts were largely disputes and settlements of estates.

Foreclosures, 1921-30

In 1921, according to fig. 11, the increase in foreclosures indicated that the liquidation of the land boom had started. As much land was foreclosed in 1921 as in the six preceding years. The cause for these foreclosures can readily be inferred from the drop in prices of farm products as shown in fig. 10.

The years that followed 1921 saw no let-up in the steady liquidation of all mortgages which could not be handled with prices fluctuating between an index of 120 and 150. Slightly less than 1 percent of the farm land in the state was foreclosed in 1922 and 1923. In the next 4 years, however, more than 1 percent of the land in the state was sold annually by the sheriff.

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*Foreclosure information for the years 1854-1914 comes from a study of Boone and Story counties; for the years 1915-32 from a study of 15 counties.

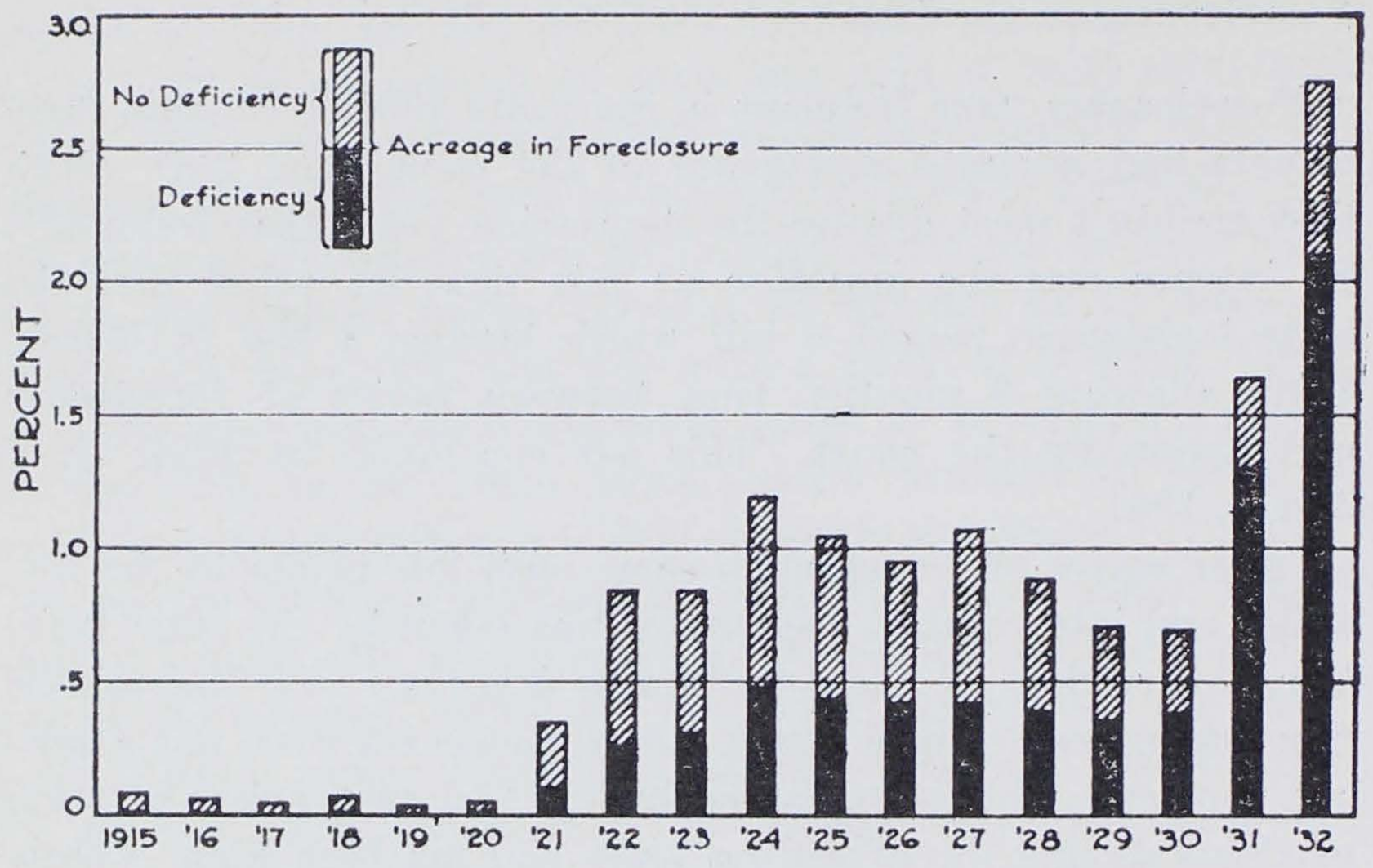

Fig. 11. Percentage of all farm land in foreclosure and proportion of foreclosed land involved in deficiency judgments, 1915-32. State estimates based on data from 15 counties.

This figure of 1 percent a year may not seem large by itself, but when there is added to it another 1 percent or thereabouts representing land assigned by the owner to mortgage holders, the liquidation cannot be considered other than significant.

By 1930 the liquidation of second and third mortgages was largely complete. If the junior mortgage debt (including second, third and fourth mortgages) for 1915 is called 100 percent, this type of debt had risen almost four times or to 390 in 1921. At the close of 1930, however, it was back to 150. During this interval the decline in first mortgage debt was relatively small.

While junior mortgages were being foreclosed, scaled down or cancelled through assignment, insurance companies and land banks were expanding their farm mortgage holdings. At the close of 1921, insurance companies had $334,000,000 in Iowa farm mortgages; in 1927, a total of $507,775,000. From 1927 the total declined to $482,900,000 at the end of 1930. The Federal Land Bank of Omaha had $27,562,000 outstanding in Iowa at the close of 1921 and $82,465,000 at the close of 1930. Joint stock land banks had $24,999,000 in Iowa farm mortgages on Dec. 31, 1921, and $82,925,000 9 years later. These figures

indicate that a large portion of the mortgage loans of these companies was taken on during a period of agricultural depression.

First Mortgage Foreclosures, 1931-32

Foreclosure, assignment and scaling down of first mortgages were under way as early as 1925, but did not bulk large until 1931. Those cases which were settled prior to 1931 included farms on which a heavy first mortgage loan had been made and farms held by non-operators who were in financial difficulties. First mortgage liquidation was the exception, not the rule.

With the year 1931, first mortgages took the center of the stage. This was caused by the violent drop in prices of farm products which occurred in this year, the index declining from 127 to 86. More than 1½ percent of the land was sold at foreclosure sale. In the first 11 months of 1932, the situation became still worse. Prices dropped to 56 in 1932 and foreclosures claimed practically 3 percent of all farm land. This brings us down to the farm mortgage moratorium issued by the governor of Iowa in January, 1933, and the standstill enactment of the state legislature passed in the following month*.

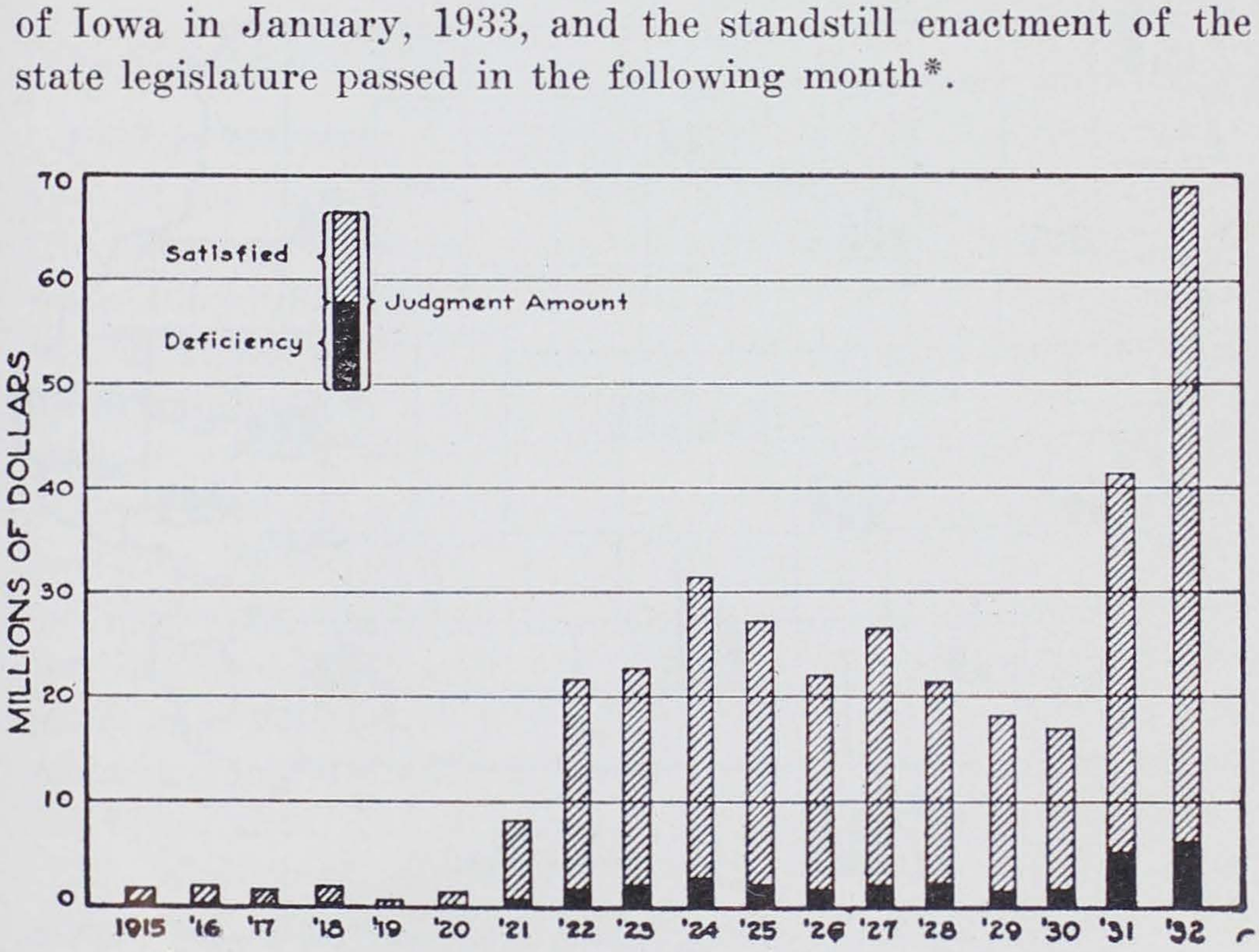

Fig. 12. Amount of judgments in foreclosure in Iowa and amount of deficiency judgments, 1915-32. State estimates based on study of 15 counties.

*For full text of this Act see appendix to this chapter.

Changes in the number of foreclosures have been accompanied by similar changes in amount of mortgage debt cancelled by foreclosure action (fig. 12). While few loans were cut out by foreclosure in the years 1915-20, in the years since 1920 approximately 327 million dollars has been involved in judgments handed down by the courts. From 1922 through 1930, 20 to 25 million dollars annually was the average for the state. In 1932, up to Dec. 1, 68 million dollars, it is estimated, was defaulted and cancelled through foreclosure sale. If figures were available for the entire year, the result would probably show upwards of $75,000,000, or $759,000 to a county.

Theer appears to be no region in the state that has been exempt from foreclosures. This is evident from fig. 13, a map showing the 15 counties for which foreclosure information was obtained for the last 18 years. The first vertical bar in each county represents the acreage involved in foreclosure in the 5-year period 1921-25, the next bar for the following 5-year period 1926-30, and the third bar for the 2-year period 1931-32.

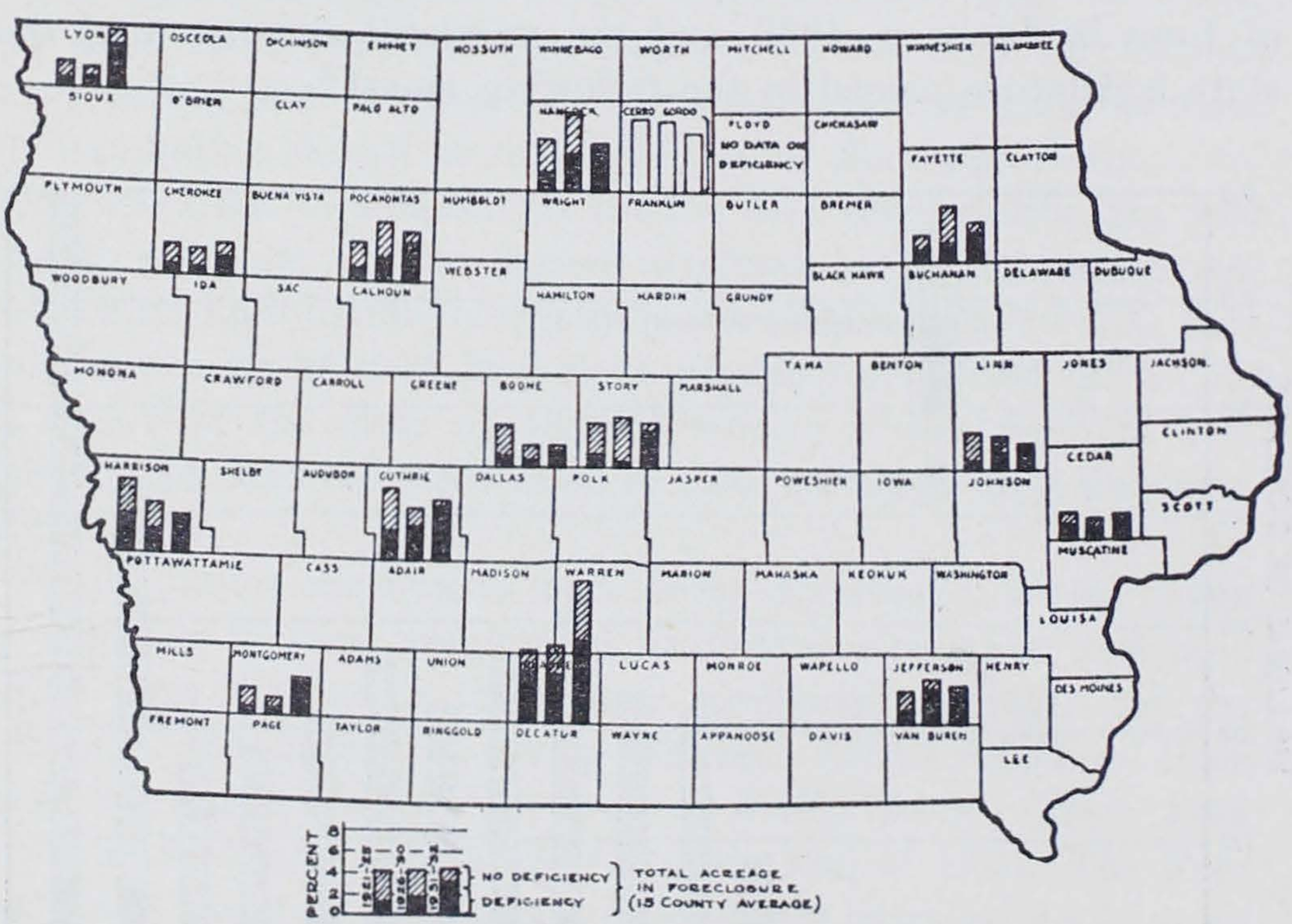

Fig. 13. Acreage in foreclosure by periods in 15 counties, and proportion of foreclosed acreage involved in deficiency judgments in 14 counties, 1921-1932. (See table II in Appendix.)

The dark shaded portions represent the percentage of the acreage on which deficiency judgments were secured. This subject of deficiencies will be discussed in a later section of this chapter. To return to the map, Clarke, Cerro Gordo, Guthrie and Hancock counties lead in the percentage of land foreclosed. Cedar, Boone and Cherokee counties, at the other end of the list, had relatively few foreclosures. Three important reasons account for the variations among counties. First, the amount of land purchases during the 1910-20 period varied as between counties; second, in some counties the ability and willingness of farm owners to hang on to their farms exceeded that in other counties; and third, the assignment of land to mortgage holders took the place of foreclosure in some counties more than in others.

In the last 2 years, it will be noted, there have been as many foreclosures as in either of the two preceding 5-year periods. This is the result of the drastic price drop of 1931-32 which caught farm owners ill-prepared to meet such a crisis. In 1921 financial reserves enabled many farm owners to hold on, while in 1931 reserves were largely exhausted.

Who Did the Foreclosing?

Private investors, deposit banks and mortgage companies did most of the foreclosing of farm mortgages in the years 1920-25 (fig. 14). As was mentioned previously these were the years when junior mortgages were foreclosed. Many of the second and third mortgages arising out of land transactions were held by private investors, a group which includes former owners of land.

From 1926 on, a new group of mortgage holders rises in importance. This group includes institutional investors whose mortgages are limited to first mortgages. The institutions are the insurance companies, the Federal Land Bank and joint stock land banks. In 1925 this group accounted for only 17 percent of all foreclosures, in 1930 for 45 percent and in 1932 for 73 percent.

The shift from private investors and deposit banks to insurance companies and land banks is fundamental to an understanding of present foreclosure problems. It represents a transition from liquidation of junior mortgage debts to liquidation

of debts that were considered by lending institutions as anything but speculative.

Deficiency Judgments Increase

In all but one of the last 12 years, each succeeding year has witnessed a larger proportion of foreclosures resulting in deficiency judgments. In 1921 only 26.5 percent of the foreclosure sales ended with the land bid in for less than the judgment against it. In 1926, the percentage bid in for less than the judgment amounted to 44 percent and finally in 1932 over 74 percent were bought with a deficiency remaining. This trend toward more deficiency judgments is pictured in fig. 11.

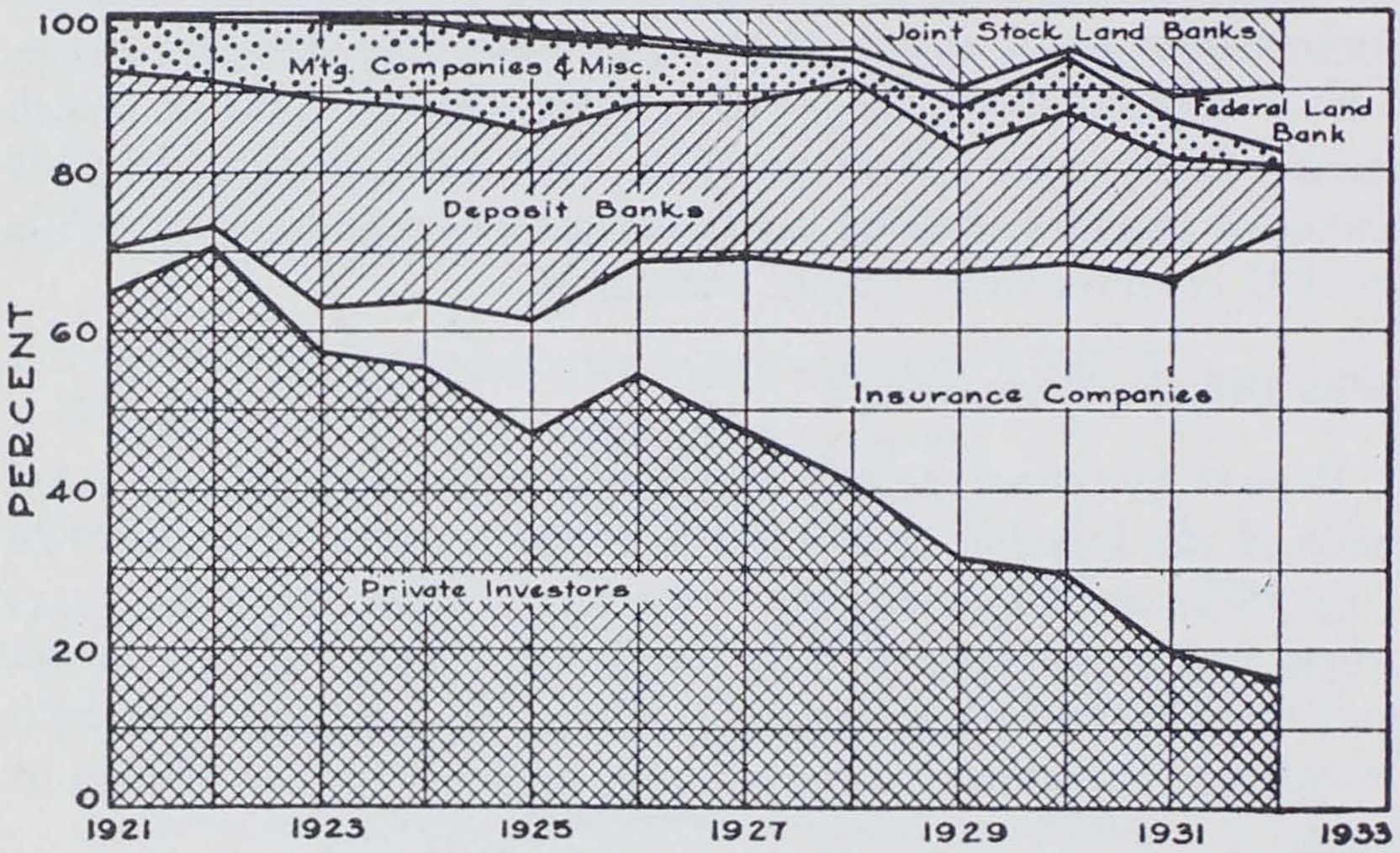

Fig. 14. Percentage distribution of acreage foreclosed by lenders, 15 counties, 1921-1932.

A deficiency judgment can be made clear by an example. A mortgage for $16,000 on 160 acres is foreclosed. The total amount against the land at the time of foreclosure sales is $17,500. This includes the original judgment allowed by the court of unpaid principal, interest and taxes, plus interest and costs since the case was started. At the foreclosure sale, the sheriff sells the land to the mortgage holder on a bid for $15,000. As a result, a deficiency of $2,500 stands against the person or persons who are liable on the original note for $16,000.

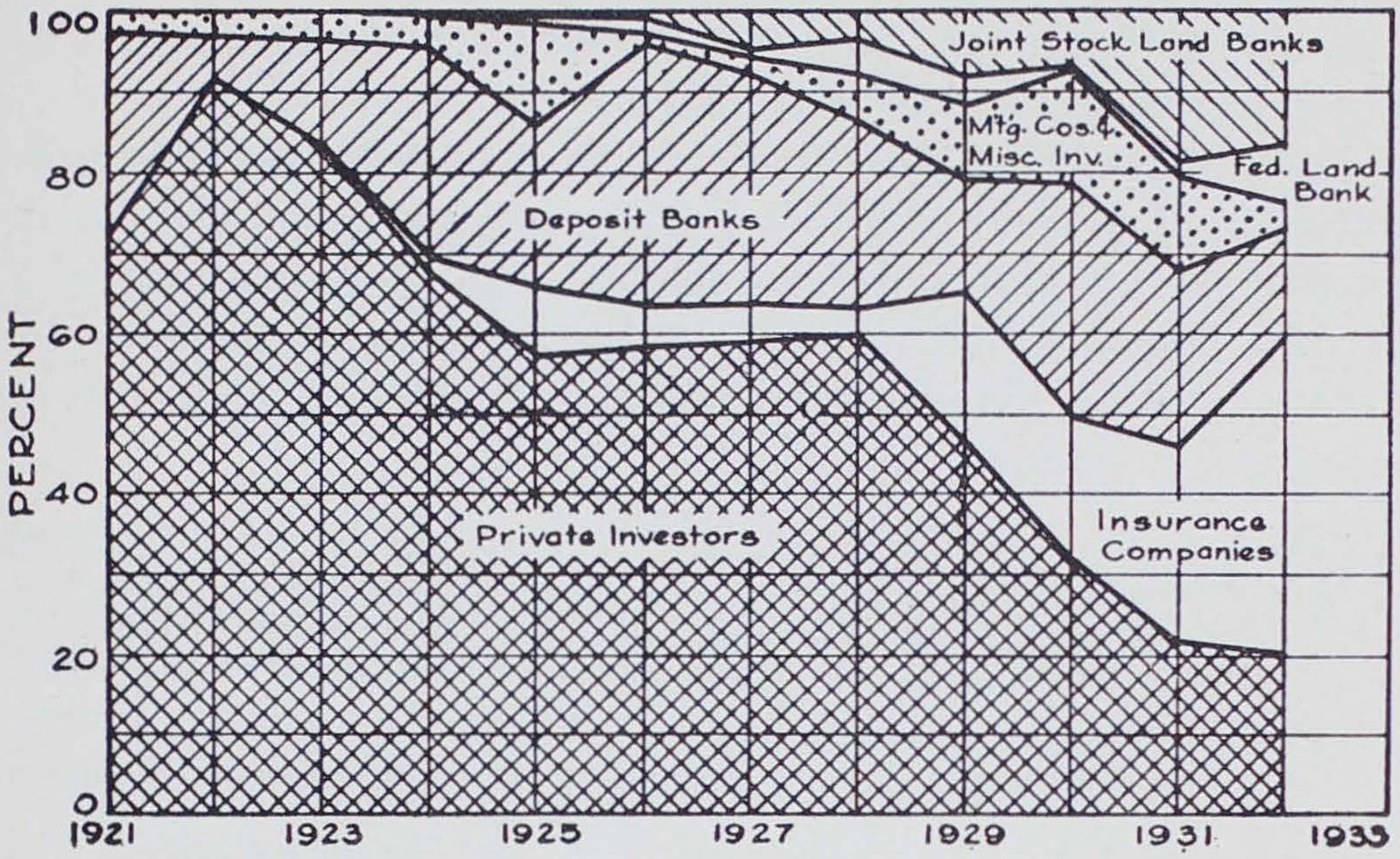

Fig. 15. Percentage distribution of acreage involved in deficiency judgments by lenders, 14 counties, 1921-1932.

In recent years, particularly since the advent of insurance companies, deficiency judgments have not been large in amount. The purpose of the bid lower than the judgment has been to make possible the appointment of a receiver so that an equivalent of rent can be obtained from the property during the year of redemption. Further, this practice means the mortgage holder avoids bidding an amount which includes accumulated interest and taxes in addition to the principal of the mortgage. Then accumulated interest in such cases will not show up in the company's income account.

The practice of securing deficiency judgments against farm owners in foreclosure has been common with all lending agencies (fig. 15.) The variations between lenders follows closely the situation with respect to all foreclosures. In the early years, up to 1928, private investors and deposit banks were the main parties obtaining deficiency judgments. In recent years, particularly since 1930, insurance companies and land banks have stepped into the lead.

SOLUTIONS

The discussion thus far has set forth two facts: First, that the debt is approximately four times too large to be supported

by the present price level; second, that the debt now outstanding does not represent junior mortgages but chiefly first mortgages originating or renewed in the period 1921-29.

The problem now is what should be done with the debt outstanding, 91 percent of which is first mortgage debt. The major portion of this first mortgage debt is owed to institutions who in turn are obligated to bond, policy and deposit holders. In February, 1933, the mortgage holdings of different lenders were estimated as follows:

Group I.		
Insurance companies	$ 450,000,000	45%
Land banks	140,000,000	14%
Deposit banks	160,000,000	16%
Group II.		
Private investors	250,000,000	25%
Total	$1,000,000,000	100%

The lenders have been listed in two groups. The first includes those having contract obligations to set against their mortgage loans. The second includes private investors generally without offsetting contracts to other parties. This question of offsetting contract obligations has been raised because it plays such an important part in all discussions of mortgage relief.

As to what should be done, three points of view and accordingly three methods of action present themselves. The first, stripped of its qualifications, is the raising of farm income sufficiently to make possible the payment of interest on present debts. The second is turning over all heavily encumbered land to the mortgage holders. And the third, an alternative to the second, is scaling down debts to a basis where the interest can be paid out of present income.

At present, with foreclosures being held in abeyance until March, 1935, no one of these policies is in effect. It would be possible, of course, to continue this moratorium indefinitely, allowing mortgage holders whatever the farm produces, the equivalent of rent in place of interest. A number of ingenious plans have been devised to carry mortgages on this basis, one of them being the adjustment of payments to the price level of farm products. But the chief purpose of recent legislation

has been to allow time for public policy to be determined along one of the three lines indicated.

Raising Farm Income

The first plan calls for income and price-raising measures such as the voluntary domestic allotment plan, removal of land from cultivation by government leasing, inflation as by reduction in the amount of gold in the dollar, and reduction in artificial barriers to international trade. Although numerous difficulties, some of them of a serious nature, must be overcome before successful execution of any income-raising scheme can be accomplished, there is no question as to the relief that would follow immediately upon the restoration of, say, the 1925-29 price level of farm products. To bring farm prices back to this level would solve the problem more quickly and more effectively than any other method. Because of the satisfactory character of the income-raising solution, it is placed first on the list, in spite of the difficulties which stand in its way.

Transfer Land to Mortgage Holders

The second solution is the transfer of the land from debtor to creditor. This has been taking place through foreclosures and assignments in Iowa for a period of 12 years. In 1931 and 1932 transfers of this kind increased at an alarming rate. In case of foreclosure, title does not pass until one year after the land is sold by the sheriff at foreclosure sale. Hence the large amount of land involved in foreclosures in 1932 will pass into the hands of mortgage holders in 1933. As fig. 14 indicates, insurance companies and land banks account for 73 percent of all land in foreclosure in 1932. This means these institutions are to get the bulk of the land transferred in 1933.

The main drawback to mortgage holders taking over land occurs where an owner is operating the farm with, at least, average success. For the creditors to assume ownership means an economic waste. First of all, a supervision expense is added. To manage their land, lending institutions must employ capable farm managers. Salaries and expenses for these men are no trivial item with farm income as low as it is. With adequate

supervision, management will amount to 50 cents an acre, which is equivalent to 5 percent on a $10 an acre mortgage.

In the second place, absentee ownership makes for additional expense in connection with maintenance of the farm. The farmer living on his own farm naturally takes an interest in keeping the farm in good condition. Work on fences, buildings, water system, soil improvement and weed eradication, he will and can do himself. On the rented farm this is not always the case. Here the landlord often faces the responsibility of seeing that this work is done and of paying to have it done.

A final argument against land transfer is the social loss that follows: A farm is a home as well as a business. If many of the owner-operator farmers are uprooted from their farms and placed at the foot of the agricultural ladder, the result would be a distinct loss to rural life.

Debt Reduction

Debt reduction, the third plan, has disadvantages also. These arise chiefly from the nature of the debts. The debts are large and in addition are held for the most part by insurance companies, land banks and savings banks. These institutions, as pointed out earlier, have contracts with policy, bond and deposit holders which call for specific payments of money at some future time. If scaling down of farm mortgages should start, the same policy would be demanded by city dwellers for the mortgages on their homes, and by other debtors who are finding it difficult to meet interest and principal payments.

A further argument against debt scaling is the difficulty encountered in deciding to what level the mortgage should be reduced. If a mortgage for $12,000 on 160 acres is in default, what reduction would be required to bring about a satisfactory solution? In 1929 with farm prices at a level 47 percent above pre-war, this debt, we will say, was not too large. Today with the price level 57 percent below pre-war, a debt of $3,000 is all that can be handled providing taxes are not heavy on this farm.

One way to figure the maximum mortgage load is to use cash rents. According to cash rent figures, the average farmer on average land in Iowa paid $5.80 an acre rent with prices at

100 (the average for 1910-14).* With prices as they were in 1932, at 56, this farmer could pay only $3.25 an acre, or with prices at 43, as they were in February, 1933, only $2.50 an acre. On this basis a 160-acre farm returned only $520 above operating expenses in 1932. Out of this sum had to come taxes, upkeep of the farm and interest on the mortgage. Taxes and upkeep would absorb $300, leaving $220 for interest or 5 percent on a mortgage of $4,400. On the basis of prices in February, 1933, and with taxes and upkeep reduced to $250, only $150 would be left for interest, which is equivalent to 5 percent on a mortgage of $3,000.

Although a $3,000 mortgage is all that an average quarter section farm can support now, the same farm during the years 1924 to 1930 carried a $12,000 mortgage easily. In these earlier years cash rent averaged $8.00 an acre. For the farm in question, this meant $1,280 total income out of which came not more than $400 for taxes and upkeep. The remainder, $880, was ample to cover the interest of $600.

The case described above may seem exaggerated. True, it does not represent the exceptional farmer whose ingenuity has enabled him to produce more cheaply than his neighbors. But the debt problem does not center on the outstanding farmer. It hinges on the ability of the majority of the farmers to obtain sufficient income to pay operating expenses, taxes and interest.

To talk to mortgage holders about reducing the face value of their mortgages 75 percent, from $12,000 to $3,000, is illogical. The reply of the mortgage holders is, "What recourse will we have if prices and farm income rise in the next few years?" The answer is that they would have little chance of raising the principal of the mortgage unless such a procedure was provided for in a contract drawn up when the mortgage was reduced.

If this last provision is made, then in place of outright debt reduction a new plan is substituted calling for adjustment of principal and interest payments to income from the property. This method is more feasible than unconditional scaling down of debts.

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*Millard Peck. A Plan for Adjusting Cash Rent to Changes in the Prices of Farm Products. Iowa Agr. Exp. Sta., Bul. 295. Page 207. October, 1932.

A final argument against the debt reduction or land transfer solution is the fact that by arrangements of this kind no relief is afforded the mortgage holder. The main difficulty is inadequate farm income. To cancel the debt or give the land to the mortgage holder does not increase the income from the land. In fact, many lending institutions are finding it difficult to obtain any income over taxes and upkeep on farms taken over through foreclosure or assignment.

Regardless of the arguments against debt reduction, unless income rises, there is no escaping the adjustment of debts. And if such a course is necessary on a large scale, what plan should be followed? If, for example, at the end of the present 2-year moratorium, income is still at the present low level, what means should be provided for handling the farm mortgages in default?

Three fundamental propositions underlie the satisfactory adjustment of debt cases. First, each case must be considered as an individual one, on its own merits. In other words, no simple plan calling for a reduction of all debts by a certain percentage will prove successful. Circumstances in each situation affect the type of adjustment needed. Second, debt adjustment can best be completed by arbitration, which means the appointment or selection of boards to bring about a settlement between debtors and creditors. Councils of this kind have been organized already in some Iowa counties. Third, some basis for adjustment should be adopted; as, for instance, reduction in line with prices, or in line with capacity to pay.

The most successful method for debt adjustment, therefore, is the hearing of individual cases by county credit councils or boards. These county credit councils, composed of public spirited men, including at least one lawyer, hear the claims of the debtor and his crediitors. After studying these claims carefully, they outline an agreement satisfactory to all parties. Such a procedure, of course, is not as simple as it sounds because farm owners often have several creditors whose claims are difficult to appraise. Moreover, what is agreeable to one creditor may not be to another. Nevertheless, there is no easy solution to the knotty problem of debt adjustment; and what has been described comes as close to a solution as is possible under our present system of contracts.

APPENDIX

This section contains the Mortgage Moratorium Acts of 1860 and 1933. Every borrower and lender should study carefully the act of 1933. Following the copy of the recent act, tables are presented showing the foreclosure situation from 1915 to Dec. 1, 1932, in 15 counties. Tables XXVII and XXIX give the number of foreclosures and amount of debt involved by lenders. Tables XXVIII and XXX classify the acreage in foreclosure by counties. Tables XXXI and XXXII show the deficiency judgments by lenders and percentage of foreclosure sales which have resulted in deficiency judgments.

Mortgage Moratorium Act of 1860

SECTION 1. *Foreclosure.* That in actions now commenced, or which may hereafter be commenced, in any of the courts of this state, for the foreclosure of any mortgage or mortgages, the defendants shall not be held to answer therein until the expiration of nine months after the date of the service of the original notice in such actions on the first defendant served, any provision in any law or laws enacted by the general assembly at its present session to the contrary notwithstanding.

SECTION 2. From and after the first day of January, one thousand eight hundred and sixty-one, thi sact shall cease to be in force, and the class of actions mentioned in this act, shall be governed by rules of practice concerning such actions in force at that time.

SECTION 3. *Take Effect.* This act to take effect and be in force from and after its publication in the Iowa State Register and the Iowa State Journal, newspapers published at Des Moines.

This bill having remained with the Governor three days, Sunday excepted, the General Assembly being in Session, has become a law this 21st day of March, 1860.

Mortgage Moratorium Act of 1933

SECTION 1. The governor of the state of Iowa having declared that an emergency now exists, and the general assembly having determined that such emergency does exist, which is general throughout the state, and that the safety and future welfare of the state as a whole is endangered thereby, the general assembly acting under the power reserved by the people of Iowa, does hereby enact the following:

SECTION 2. In all actions for the foreclosure of real estate mortgages or deeds of trust now pending in which decree has not been entered, and in all actions hereafter commenced for the foreclosure of real estate mortgages or deeds of trust, or on notes secured thereby, in any court of record in the state of Iowa, while this act is in effect, the court, upon the application of the owner or owners of such real estate or persons liable on said mortgages or deeds of trust, or notes secured thereby, who are defendants in said cause and not in default for want of pleading or appearance shall, unless upon hearing on said application good cause is shown to the contrary, order such cause continued until March 1st, 1935, or so long as this act is in effect, providing however, that in all causes now pending in which default has been

entered but no decree signed, said owner or owners of such real estate or persons liable on said mortgages or deeds of trust, or notes secured thereby, shall have ten days from the taking effect of this act in which to file said application for continuance, and upon such order of continuance the court shall make order or orders for possession of said real estate, giving preference to the owner or owners in possession, determine fair rental terms to be paid by the party or parties to be in possession and the application and distribution of the rents, income and profits from said real estate, and make such provision for the preservation of said property as will be just and equitable during the continuance of said cause, which order or orders shall provide that such rents, income or profits shall be paid to and distributed by the Clerk of the District Court of the county in which said suit is pending, and further provide that in such distribution taxes, insurance, cost of maintenance and upkeep of said real estate shall be paid in the priority named, and any balance distributed as the court may further direct; provided, however, that the court shall, upon a substantial violation of its said order or orders, or for other good and sufficient cause, set aside said order or continuance and the cause shall proceed to trial as by law now provided, the provisions of this act to the contrary notwithstanding.

SECTION 3. For the purpose of the administration of this act, the court may in all cases suggest and recommend conciliation.

SECTION 4. All acts and parts of acts in conflict with this act are suspended while this act is in effect.

SECTION 5. From and after the first day of March, 1935, this act shall cease to be in force.

SECTION 6. This act being brought forth to meet an emergency through the police power of the state and being deemed of immediate importance shall be in full force and effect after its passage and publication in the Fort Dodge Messenger, a newspaper published at Fort Dodge, Iowa, and the Sibley Gazette-Tribune, a newspaper published at Sibley, Iowa.

(This bill was signed by the governor Feb. 8, 1933.)

TABLE XXVII. NUMBER OF FORECLOSURES BY LENDERS IN 15 COUNTIES, 1915-1932*

Year	Private investors	Insurance companies	Deposit banks	Mortgage companies	Federal land bank	Joint stock land banks	Miscellaneous investors	Total
	1	2	3	4	5	6	7-8	
1915	23	.....	7	1	1	.....	.....	31
1916	29	.....	.....	.....	.....	.....	.....	29
1917	11	.....	1	4	.....	.....	2	18
1918	17	3	5	1	.....	.....	.....	26
1919	8	.....	2	3	.....	.....	3	16
1920	17	1	4	1	.....	.....	1	24
1921	80	7	29	6	.....	.....	2	124
1922	215	7	60	21	.....	1	7	311
1923	173	15	77	26	1	1	7	300
1924	235	31	93	40	.....	4	3	406
1925	205	46	77	39	4	8	7	386
1926	203	37	65	22	2	10	4	343
1927	205	76	71	19	2	9	5	387
1928	136	65	64	12	5	12	1	295
1929	97	72	45	10	4	18	3	249
1930	97	82	50	9	3	11	9	261
1931	155	225	71	16	17	51	8	543
1932**	217	465	87	15	69	78	5	936
Total	2123	1132	808	245	107	203	67	4685
Percent	45.3	24.2	17.3	5.2	2.3	4.3	1.4	100

*The 15 counties are listed in table XXX.
**To Dec. 1, 1932.

TABLE XVIII. PERCENTAGE OF TOTAL ACREAGE IN FORECLOSURE AND PERCENTAGE OF TOTAL ACREAGE INVOLVED IN DEFICIENCY JUDGMENTS BY PERIODS, 1921-32

County	Total acreage in percent			Deficiency acreage in percent		
	1921-25	1926-30	1931-32	1921-25	1926-30	1931-32
Boone	2.6	2.1	2.1	1.03	.73	1.79
Cedar	2.6	2.1	2.5	1.23	1.18	1.99
Cerro Gordo	7.0	6.8	5.8	.....	.....	.....
Cherokee	7.0	6.8	5.8	.....	.....	.....
Clarke	6.8	7.3	13.3	4.96	4.89	7.84
Fayette	2.6	5.2	3.7	1.02	1.75	2.85
Guthrie	7.0	4.9	5.8	2.83	3.32	5.28
Hancock	4.8	7.3	4.5	1.70	3.60	4.02
Harrison	6.7	4.9	3.8	3.52	2.27	3.14
Jefferson	3.2	4.2	3.4	1.09	3.21	3.01
Linn	3.5	3.2	2.5	.82	1.68	2.06
Lyon	2.4	2.0	5.4	.96	.98	4.15
Montgomery	2.6	1.8	3.7	.97	.96	3.34
Pocahontas	3.5	5.7	4.7	1.06	2.30	3.84
Story	4.3	4.8	4.2	1.05	.66	3.47
Average	4.28	4.31	4.39	1.62	1.97	3.38

TABLE XXIX. JUDGMENTS IN FARM MORTGAGE FORECLOSURE BY LENDERS IN 15 COUNTIES AND ESTIMATED STATE TOTAL, 1915-1932

Year	Private investors	Insurance companies	Deposit banks	Mortgage companies	Federal land bank	Joint stock land banks	Misc. investors	Total 15 counties	Estimated Total for state
1915	$ 112,398	$	$ 126,959	$ 5,298	$	$	$	$ 244,655	$ 1,524,200.65
1916	159,423							159,423	993,205.29
1917	70,959		368	20,822			455	92,604	576,922.92
1918	106,162	17,584	29,340	6,550				159,636	994,532.28
1919	20,496		9,432	6,235			1,307	37,400	233,438.10
1920	59,607	5,748	7,109	21,355			2,900	96,719	602,559.37
1921	960,927	74,143	260,396	44,015			2,275	1,341,756	8,359,139.88
1922	2,777,242	85,487	442,300	110,519		9,627	41,977	3,467,152	21,600,356.96
1923	2,246,847	204,541	877,974	182,374	15,916	16,204	92,745	3,636,601	22,656,024.23
1924	3,140,093	425,851	997,994	392,517		59,176	40,599	5,056,230	31,500,312.90
1925	2,373,487	613,218	923,891	244,525	43,117	90,402	96,595	4,385,235	27,320,014.05
1926	2,039,959	610,974	581,860	128,771	12,399	134,155	23,367	3,531,485	22,001,151.55
1927	2,167,519	1,115,026	655,343	107,041	9,061	150,251	88,064	4,292,305	26,741,060.15
1928	1,486,573	1,038,303	665,513	72,973	36,389	117,977	11,816	3,429,544	21,366,059.12
1929	1,115,028	1,057,947	307,224	152,130	42,440	269,545	21,615	2,965,929	18,477,737.67
1930	744,090	1,261,225	402,191	87,925	30,015	129,427	72,967	2,727,840	16,994,443.20
1931	1,278,951	3,374,928	731,819	292,080	190,844	685,529	62,050	6,616,201	41,218,932.23
1932*	1,689,944	6,896,158	576,705	135,121	699,720	1,042,119	31,084	11,070,851	68,971,401.73
Total	$22,549,705	$16,781,133	$ 7,596,418	$ 2,010,251	$ 1,079,901	$ 2,704,412	$ 589,816	$53,311,636	$ 332,131,492.28
Percent	42.3	31.5	14.2	3.8	2.0	5.1	1.1	100	

*To Dec. 1, 1932.

TABLE XXX. ACREAGE INVOLVED IN FARM MORTGAGE FORECLOSURE IN 15 COUNTIES, 1915-32*

Year	Boone	Cedar	Cerro Gordo	Cherokee	Clarke	Fayette	Guthrie	Hancock	Harrison	Jefferson	Linn	Lyon	Montgomery	Pocahontas	Story	Total	Percent af total acreage
1915	77	240	560	718	960	370	88	.....	503	238	397	32	240	.....	120	4,543	.09
1916	246	80	174	72	974	382	80	200	130	317	398	.....	.....	275	.....	3,328	.06
1917	.....	120	390	.....	10	400	.....	400	502	.....	235	.....	.....	.....	60	2,117	.04
1918	10	80	505	.....	520	160	359	640	808	290	747	.....	.....	.....	8	4,127	.08
1919	40	.....	200	320	120	.....	.....	.....	335	102	220	134	.....	252	118	1,841	.03
1920	292	.....	160	160	.....	40	85	320	902	95	260	.....	.....	.....	174	2,488	.05
1921	1,861	405	1,044	520	1,800	744	2,589	1,630	3,373	645	1,892	134	959	439	781	18,816	.36
1922	2,951	1,570	2,600	2,962	5,110	1,440	7,013	3,118	4,222	1,714	3,333	2,635	1,690	1,995	2,266	44,619	.85
1923	2,250	1,400	3,740	2,997	4,459	2,222	5,876	4,543	3,315	1,912	3,760	1,108	1,138	2,026	3,330	44,076	.84
1924	3,696	4,822	10,059	2,374	2,971	4,893	5,190	4,059	10,834	830	2,618	1,773	2,335	3,519	2,880	62,853	1.19
1925	3,299	717	6,874	1,560	3,452	2,307	4,770	3,725	7,091	3,146	2,942	3,049	914	4,924	6,046	54,816	1.04
1926	1,904	520	5,012	2,354	4,062	4,826	4,723	4,633	5,600	1,839	1,476	1,574	1,091	5,354	4,895	49,863	.95
1927	1,913	2,324	6,054	2,935	2,910	4,264	3,676	8,336	5,223	1,291	1,796	2,755	1,216	6,088	5,736	56,517	1.07
1928	1,575	1,448	3,401	920	3,615	4,253	3,574	5,443	5,366	2,899	2,921	1,700	954	4,140	3,947	46,156	.88
1929	1,020	1,959	2,965	1,206	4,327	5,656	2,730	3,541	3,080	1,986	4,380	520	520	2,526	1,088	37,504	.71
1930	823	977	5,914	1,567	3,977	4,172	2,883	3,608	1,751	2,855	2,491	745	910	2,622	1,494	36,789	.70
1931	1,433	2,735	6,053	4,722	18,625	5,936	8,357	6,819	4,355	4,220	2,896	8,000	3,045	4,773	4,162	86,131	1.63
1932**	5,727	6,089	14,049	6,066	15,860	10,664	12,653	8,940	11,904	4,620	7,419	11,553	6,875	12,203	10,565	145,187	2.76
Total	29,117	25,486	69,754	31,453	73,752	52,729	64,646	59,955	69,294	28,999	40,181	35,712	21,887	51,136	47,670	701,771	3.3
Percent of all land	8.3	7.3	20.2	8.8	28.4	11.9	17.9	17.0	16.1	11.2	9.7	9.9	8.2	14.1	13.4	13.3	13.3

*Where a farm was involved in more than one foreclosure in the same year, the acreage was counted only once.
**To Dec. 1, 1932.

TABLE XXXI. NUMBER OF DEFICIENCY JUDGMENTS IN FARM MORTGAGE FORECLOSURE SALES BY LENDERS, 14 COUNTIES, 1915-32

Year	Private investors	Insurance companies	Deposit banks	Mortgage companies	Federal land banks	Joint stock land banks	Miscellaneous investors	Total
1915	2	.....	3	1	.....	.....	.....	6
1916	4	.....	.....	.....	.....	.....	.....	4
1917	1	.....	.....	1	.....	.....	.....	2
1918	2	1	1	.....	.....	.....	.....	4
1919	.....	.....	.....	.....	.....	.....	.....	.....
1920	3	.....	.....	1	.....	.....	.....	4
1921	25	.....	5	1	.....	.....	.....	31
1922	68	1	7	7	.....	.....	.....	83
1923	75	2	17	6	.....	.....	3	103
1924	84	4	28	12	.....	2	2	132
1925	80	14	22	18	2	6	1	143
1926	78	11	34	6	2	5	1	137
1927	69	19	27	6	1	8	1	131
1928	53	10	37	8	5	11	.....	124
1929	36	20	20	8	3	13	2	102
1930	49	30	27	5	1	9	8	129
1931	102	132	53	14	13	49	5	368
1932*	131	304	59	10	55	64	5	628
Total	862	548	340	104	82	167	28	2,131
All foreclosures	1,930	975	747	233	91	196	64	4,236
Percent of all foreclosures	44.7	56.2	45.5	44.6	90.1	85.2	43.8	50.3

*To Dec. 1, 1932.

TABLE XXXII. NUMBER AND SIZE OF DEFICIENCY JUDGMENTS, 14 COUNTIES—1915-1932

Year	Number			Amount		
	All judgments	Deficiency judgments	Percent of all judgments	Total judgments in deficiency cases	Deficiency	Percent of total judgments
1915	28	6	21.4	$ 20,758	$ 6,205	29.9
1916	27	4	14.8	25,702	7,912	30.8
1917	16	2	12.5	5,781	1,691	29.3
1918	24	4	16.6	42,583	32,186	75.6
1919	15	.....	.....	.....	.....	.....
1920	23	4	17.4	47,619	22,362	47.0
1921	117	31	26.5	391,876	130,276	33.2
1922	292	83	28.4	1,111,086	266,567	24.0
1923	280	103	36.8	1,485,759	306,220	20.6
1924	337	132	39.2	1,887,476	365,046	19.3
1925	339	143	42.2	1,905,501	311,707	16.4
1926	310	137	44.2	1,578,493	257,818	16.3
1927	347	131	37.8	1,487,016	284,676	19.1
1928	277	124	44.8	1,370,305	344,128	25.1
1929	225	102	45.3	1,343,673	218,515	16.3
1930	224	129	57.6	1,317,789	227,191	17.2
1931	507	368	72.6	4,520,545	739,512	16.4
1932*	848	628	74.1	7,871,053	934,068	11.9
Total	4,236	2,131	50.3	$26,413,015	$4,456,080	16.9

*To Dec. 1, 1932.

CHAPTER SIX—DECEMBER, 1932

The Voluntary Domestic Allotment Plan

By Theodore W. Schultz and A. G. Black

THE PLAN*

In simplest terms, the domestic allotment plan proposes to do two things: (1) Give the farmers, for example, of wheat, cotton, hogs, tobacco and rice certain benefits on that part of their production consumed within the United States, (2) provide the necessary control measures to keep the producers from expanding production and, also, if necessary, bring about a gradual reduction. Seven essential features underlie the plan:

1. The voluntary choice of farmers in entering the plan.

2. The collection of the required *allotment funds* from processors and manufacturers—millers, packers, textile manufacturers, etc.—by means of an excise tax or "processing charge" on that part of the commodity prepared for domestic consumption.

3. A yearly estimate of the total quantity of crops (wheat, cotton, tobacco and rice) required for domestic use other than feed and seed and the number of hogs needed for consumption other than for breeding stock and farm use.

4. Allotment of this total among individual producers in proportion to the past production of their present farms.

5. The distribution to alltoment holders of a "compensatory payment" on each unit of the domestic allotments.

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*The foreword to circular No. 141 included the following statement: The plan was originally proposed by the late W. J. Spillman. Since then it has undergone successive modifications at the hands of Professors J. D. Black and M. L. Wilson. A bill embodying the voluntary domestic allotment idea was introduced during the last session of Congress by Senator Norbeck of South Dakota and Representative Hope of Kansas.

The discussion that follows is, in the main, based on the Norbeck-Hope bill. What is said is of necessity tentative. The plan is comparatively new. There is no assurance that it will not be materially modified by those now working on it.

Our purpose is to point out the essential features of the plan as now proposed, rather than to pass judgment. Our task is to show the proposal in its various phases and to consider some of the problems that its application would involve. This discussion should prepare the way for a more thorough study of it by Corn Belt farmers and farm leaders.

6. The signing of a contract by allotment holders agreeing to restrict production if and as the administrative agency may decide.

7. The automatic discontinuation of the plan when the purchasing power of the commodity reaches the 1910-1914 level.

Voluntary Aspect of Plan

The plan is voluntary because the claim to compensatory payments would be acquired by voluntary signature to and fulfillment of a contract whereby farmers agree to limit or reduce their production if and as directed by the administrative agency. In no case would it go into effect until 60 percent of the producers of a commodity so desired.* All farmers who felt that they were sacrificing their personal liberty in entering the required production contract could stay out. They could continue to produce as much as they desired but of course would get none of the compensatory payments. The expression of willingness of 60 percent of the producers may be measured either by number or by average annual production.

Collecting the Allotment Funds

An excise tax will be collected from those who process, manufacture or distribute the product for domestic consumption. At just what point the tax will be levied is not fixed. Whether it will be at the time of processing or sale depends upon which proves the more equitable. When a processor exports any part of the commodity on which he has paid a tax, he will be refunded the amount of the tax.

The *allotment fund* derived from the tax is to be paid to the producers. It is a payment distinctly separate from the price of the commodity. Each farmer is to receive his prorata share of this fund, provided he signs a contract to restrict his production.

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*The plan as it is being applied by the Agricultural Adjustment Administration in the case of wheat does not require that a referendum be taken. Whether all or only a few farmers desire the plan, it will be put into operation. The individual contracts, however, are purely voluntary.

Estimate of Domestic Consumption

The amount of the compensation payment to individual farmers is determined by the quantity of the commodity processed on which the tax is collected, the height of the tax, the administrative expenses deducted and the aggregat allotments of producers who are entitled to receive the payments.

First in importance is the size of the yearly allotment fund. This will depend, as already stated, chiefly upon two things, (1) the quantity of the commodity consumed within the United States, and (2) the height of the tax. We consume annually about 500,000,000 bushels of wheat in contrast to 20,000,000 bushels of rice. Obviously, with the same processing tax per bushel the allotment fund for wheat will be 25 times as large as that for rice. But there are, of course, many more wheat than rice growers. Table XXXIII shows the maximum amount that can possibly be collected for each of the five commodities, unless production is sharply reduced. It is based on the existing tariff rates, except cotton, which is calculated at 5 cents a pound.

TABLE XXXIII. ESTIMATED ANNUAL MAXIMUM COMPENSATORY PAYMENTS TO PRODUCERS IN THE UNITED STATES[a]

To producers of:	Units of measure	Production[b] (in thousands)	Consumption[b] (in thousands)	Maximum payments[c] (million dollars)
Hogs	Pounds	14,950,000	13,390,000	267
Wheat	Bushels	860,000	500,000	210
Cotton	Bales	14,800	6,600	165
Tobacco	Pounds	1,400,000	900,000	45
Rice	Bushels	43,000	20,000	6
Total				693

[a]Based on 5 cents a pound for cotton and the existing tariffs: wheat 42 cents a bushel; hogs, 2 cents a pound; tobacco, 5 cents a pound; rice, ½ cent a pound.
[b]Five-year average, 1926-30.
[c]Assuming that the whole burden of the tax is borne by the consumer and that there is no decrease in the quantity consumed, and also, that there are no administrative costs.

Making the Allotments

All allotments are based upon how much the state, county, and individual farm has been producing. In this the plan is really quite simple in design. The amount of the domestic consumption of each commodity is allotted to the various producing states in proportion to their average production in the preceding five

years. For example, the annual domestic consumption of flour is equivalent to approximately 500 million bushels of wheat. Since Iowa has averaged only 1 percent of the total production of the country, it is entitled to an allotment of 5 million bushels on which the compensatory payments are made.

The state allotment is divided among the counties in exactly the same way. Each county receives a share of the state allotment in proportion to its production. Likewise within the county, the total county allotment is distributed among the individual farms on the basis of their past production. Each farmer is then issued allotment certificates. These certificates belong to the farm. They are a property right over that share of the domestic consumption prorated to that farm. The certificates presumably will have a fairly constant value. Note again that the allotment certificates and the payments proposed on them are in no way connected with the going market price. The price structure is not affected. The payments are wholly supplementary.

Distribution of Compensatory Payments to Allotment Holders

Allotment holders are to receive a payment per bushel, bale, or pound on their allotment. The market price paid to the farmer is not disturbed in any way. He may sell his products to anyone at any time. Definitely, the compensatory payments do not aim at higher market prices; it leaves them to be determined by the ordinary forces. *The plan is income supplementing and not price raising.*

The number and the size of the farms will determine how large a share of the net allotment fund is to go to each farmer.

TABLE XXXIV. ESTIMATED AVERAGE ANNUAL MAXIMUM PAYMENTS PER FARM IN THE UNITED STATES

	Number of farms reporting (1930 census)	Maximum payment (dollars)	Average payment per farm (dollars)
Hogs: United States....	3,600,000[a]	267,000,000	74
Iowa	180,000	54,000,000	300
Wheat	1,210,000	210,000,000	174
Cotton	1,986,000	165,000,000	83
Tobacco	433,000	45,000,000	104
Rice	9,000	6,000,000	667

[a]Number of farms reporting hogs from 1925 Agricultural Census.

Incidentally, the name of the plan arises from the fact that the payments are allotted to specific farms. A payment will be made to the farm regardless of the quantity produced or sold, provided, of course, that the terms of the contract are not violated.

The Contract and Production Restriction

Allotment certificates are given only to those producers who will sign a contract not to increase their production, so far as it is within their control. The producer, also, must agree to reduce his production should the administrative agency decide that a reduction is desirable. The decision whether or not a reduction is advisable will be made after considering both the domestic and foreign economic prospects and the expressed opinions of the producers of the commodity.

This contract, voluntarily entered into by the farmer, is a most important feature of the plan; in fact, the heart of it. The contract feature is what distinguishes this plan from the equalization fee and export debenture. It is a real virtue of the plan that it would not stimulate production. Because no farmer is likely to pass up the compensatory payments to which he is entitled by the allotment, it appears that he will gladly enter into the contract. But there is no obligaion upon him to do so. If the contract is not observed he loses his allotment rights.

The importance of the contract around which the domestic allotment plan is built can hardly be over-emphasized. It gives a definite method whereby farmers can restrict production when desirable. It protects the plan against the charge of dumping; there should be no danger of reprisals or retaliations on the part of foreign countries. It prevents increased incomes from stimulating production. Finally, it lays the foundation for a system of planning as well as controlling agricultural production.

Purchasing Power Provision

The application of the plan is contingent upon the condition that the commodity is selling for less than its pre-war purchasing power. After the plan is once in operation special provision is made for its automatic discontinuation when the price of the commodity rises to the 1910-1914 purchasing power level. This feature of the plan is clearly intended to protect the consumer.

The Application of the Plan Illustrated With Hogs

From 1926 to 1930 the United States produced an average of 14,950 million pounds of hogs annually. Iowa's production was approximately 2,935 million pounds, or 20 percent of the total. This, then, would be Iowa's production allotment.

The pork and lard consumed each year in this country is equivalent to about 13,390 million pounds of hogs liveweight. The difference between 14,950 and 13,390 million pounds represents exports, principally lard. Iowa's share of the domestic consumption would be around 2,678 million pounds. On this part of its yearly marketings Iowa is to receive compensatory payments. At 2 cents a pound this would net the hog farmers of Iowa a maximum of not more than $54,000,000.

But how would the plan apply to a farmer who, for example, usually keeps 10 brood sows? For the past 5 years Iowa farmers have had about 2 million sows farrow annually. These sows have averaged virtually 6 pigs to the litter. Thus, if a farmer in Iowa had a production allotment of 10 sows, meaning 10 litters of pigs, he would be entitled to sell in the neighborhood of 15,000 pounds of hogs. On the basis of the calculations given above, he would receive compensatory payments on 13,500 pounds of his production. Therefore, if he sold for slaughter not more than 15,000 pounds he would be paid as a maximum on his allotment certificates $270.

In operation this would result in each farmer selling his hogs when they about reached the gross weight allowed him. With small litters it would mean heavy hogs and with large litters light ones. It is apparent that the certificates in the case of hogs must be made transferable, in whole or in part. Thus, if a farmer lost his hogs by cholera, he could sell his certificates to another farmer. This would provide some insurance for his pig crop. Similarly, if his feed crop should fail, he could sell his pigs below the gross weight allotted to him and also his remaining unused certificates. Under such an arrangement there would be considerable freedom in handling the breeding and feeding operations of the farm.

Of particular urgency is the need for a thoughtful consideration of the plan's application to the hog industry, mainly, because the domestic allotment plan has been conceived largely in

terms of wheat and cotton. What can it do for the hog producer? Is it at all workable when applied to hogs? If it is, what specific modifications are necessary? These and related questions involving a more or less critical appraisal of the plan under Iowa conditions merit, if not demand, the attention and study of Iowa farm people.

THE PROBLEM OF ADMINISTRATION

Each farmer is to receive a prorata share of the compensatory payments in proportion to his past production. How hard is it to make these allotments to individual producers? It is safe to say that the allotments to the state are easily determined. Even the allotments to the respective counties within a state such as Iowa can be made fairly satisfactorily on the basis of crop reporting figures now available. But the division of the total allotment of the county or township to each farm is likely to be a big task. To the extent that assessors' data are complete, this final step necessary to make allotments is not a serious administrative weakness. It is assumed also that the claims of individual farmers within the township will be published and that this publication will serve as a check on exorbitant claims. It would seem, therefore, that reasonably satisfactory allotments may be made to each farm.

To change the distribution of the allotments from time to time so as not to impede completely the natural shifting of production areas also presents a problem. If it is done each year, producers may be led to increase their production unduly for a few years so as to get a right to a larger allotment. On the other hand, if the production quotas are not redistributed at all, it will greatly restrict needed adjustments in production areas.

Another difficult task in administration is obtaining accurate information as to whether or not producers have fulfilled their contracts with regard to acreage devoted to wheat and cotton. In hogs, how is it feasible to determine just when a producer has increased his production?

Then, too, the question arises, how is it possible to keep these commodities from being sold to consumers without the payment of the processing tax? Processors may conceal evidence of purchase of hogs and production and sale of pork and lard to the re-

tail trade and thus save the cost of the 2-cent tax. Conceivably, processors may enter into gentlemen's agreements to conceal a proportion of their transactions. In the main this problem is less real than it may appear. The inspection of slaughter and the various checks on hog sales at the packing plants provide sufficient safeguards. With wheat it is even less a problem.

A more perplexing administrative problem lies in controlling slaughter for local consumption. Hogs slaughtered for home use are of course exempt from the processing tax. But slaughter for local sales by farmers and butchers is an important hog outlet, particularly in the East. For example, 50 percent of the farm slaughter of the New England states, compared with 2 percent for Iowa, is sold as pork. How is it possible to collect the 2-cent a pound tax on this local slaughter and not at the same time encourage the "bootlegging" of pork? Is it safe to assume that public sentiment would support rigid enforcement of the tax law in farming districts? Further study may indicate some modification that will overcome this difficulty.

SOME PROBABLE ECONOMIC CONSEQUENCES OF THE PLAN

What effect will the plan have upon consumption, prices, shifts in production areas, trade movements, and the many other adjustments that are apparently involved? All of these problems need to be carefully analyzed. Much technical information is needed. Special work is now being done by research workers at Iowa State College, at Washington and elsewhere.

It will be helpful to indicate some of the more important consequences that may be anticipated when the domestic allotment plan goes into effect. This discussion is at best only a preliminary survey of the economic effects of the plan. The following suggested consequences, provisional as they are, should aid in focusing attention upon those parts of the plan that most need consideration.

Plan Assures Minimum Farm Income

The domestic allotment plan provides some important insurance features. It assures the farmer of a minimum income regardless of low prices or crop failure. The compensatory pay-

ments, depending mainly upon the quantity consumed, are not likely to vary much from year to year. Because the compensatory payments are certain they would reduce the hazard of price decline. Thus, if the assumed payments were added to the present farm prices of wheat, cotton and hogs, they would practically double the income that farmers receive from these commodities. In view of the ruinous low prices now current, the social importance of some such safeguard is patent.

The plan is also an insurance against production failures. As already suggested, any farmer having lost his hogs due to cholera will still receive compensatory payments on his allotment certificates. Similarly, it is a protection against crop failure. The need for some form of insurance in cotton and wheat farming against crop failure has been repeatedly dramatized. The experiences in the spring wheat area in 1931 and the winter wheat area in 1932 are all too near to be forgotten.

The farmer is to be given a payment whether he produces a single bushel, or pound of pork, provided he has been a wheat or hog farmer in the past. This is in some ways a wide departure from the usual social philosophy. It is justified, however, by some of our foremost economists on the ground that there is a net gain. They hold it is good policy to give up some production efficiency in order to obtain a larger measure of certainty in social well-being.

Would Prices at the Farm Drop?

Will the packer, miller, and textile manufacturer simply pay proportionately less for hogs, wheat, and cotton when the domestic allotment plan goes into effect? Clearly, the assumption underlying the preceding diiscussion has been that farm prices will not be affected adversely by the processing tax.

Neither will farm prices drop by the full amount of the processing tax nor will the consumer bear the whole burden. Take wheat; suppose the miller pays 30 cents a bushel tax. What will prevent him from paying that much less for wheat in the open market? The answer is to be found in world prices. If the miller offered less than the exporter could receive by shipping to Liverpool, his bins would remain empty. And, presumably, if the total amount of flour consumed in the United States remained un-

changed the farm price of wheat would not be lower after the adjustments were completed.

But sight must not be lost of the fact that higher prices will decrease domestic consumption. The processor will try to pass the tax on to the retailer who will in turn raise his price to housewives. They will buy less. Just how much less is a rather technical question. It is different during depression than in boom times. Each commodity would have to be studied separately.

Returning for a moment to wheat, to the extent that domestic consumption decreases, wheat prices will decline to a point that will permit either larger exports or more domestic consumption. If, as is proposed in the plan, wheat acreage is reduced, the lessened consumption may be counteracted. Then, farm prices would not drop.

The balancing of any decrease in consumption by less production so as not to disturb farm prices and exports is the central idea underlying the domestic allotment plan. Whether or not this is a profitable adjustment for farmers depends largely upon the type of demand they are dealing with. In this, too, each commodity is different. In general, though, it is true that higher prices do not reduce the consumption of foodstuffs proportionally. The demands for necessities are usually quite inelastic in character. With inelastic demands the processing tax is largely borne by the consumer. Here, again, the problem is very intricate.

The demand for pork particularly presents a very knotty problem. The price interrelationship of pork, beef, mutton and eggs is of special interest. Any appreciable rise in pork prices would cause housewives to use more of these other foods. The consumption of pork would consequently decline accordingly, but this very process of substitution would increase the demand for pork substitutes, hence their price. Thus, indirectly the plan will benefit the cattle, sheep and poultry farmers. The problem is not whether substitution will result, but to what extent it is likely to take place. Again, the question can only be raised at this time.

Probable Immediate Effect on Consumer Prices

The domestic allotment plan will perforce increase prices to the consumer. But consumer prices will not increase at once by

the full amount of the tariff charge. Thus, if the miller were required today to pay a tax of 30 cents, it would nearly double the cost of his wheat.* But even though the cost of wheat to the miller were increased from around 40 cents to 70 cents a bushel, it is not likely that the price of flour, much less of bread, would rise proportionately. For the time being much of the processing tax would be absorbed in the distributive system in the same way that much of the price decline of these raw materials has not been reflected in retail prices.

Although in general consumer prices will not increase at once by the full amount of the tax, some will do so more quickly than others. Prices of cigarettes, cigars, and snuff in all probability are influenced very little by a tax of, for instance, 5 cents a pound on tobacco. On the other hand, 2 cents added to the price of hogs would soon be reflected in higher retail prices. But generally speaking, should the processing taxes go into effect now with wheat, cotton, hogs, tobacco, and rice, prices all proportionally lower—compared with 1920 to 1929—than the prices of the respective consumer goods made from these commodities, it is probable that a large part of these taxes would be absorbed by the processor, manufacturer and distributor.

Lard and Lard Substitutes

Lard is being severely pressed in the domestic market by substitutes, particularly by vegetable oils. Presumably, the disadvantage of its competitive position would be further accentuated by the proposed tax on hogs. Several possibilities arise: (1) The packer may force more lard into export channels, (2) the tax on hogs may be shifted to other pork products, especially cured pork, (3) some countervailing tax might be imposed on lard substitutes. The processing tax applied to cotton may increase the price of cottonseed oil, especially if acreage is restricted. This, then, would help the lard market. The appraisal of each of these adjustments is not possible. The information at hand is too fragmentary. The outlook for lard and lard prices is even now clouded by a number of uncertainties.

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*December, 1932.

SUMMARY

The allotment plan differs from the McNary-Haugen bills and the export debenture in that it definitely recognizes the need for some form of production control when prices are increased. The lack of such control is one of the strongest economic arguments that has been directed against the other two farm relief proposals.

Clearly, the domestic allotment idea is a recognition of the principle that a tariff does not benefit farmers who produce a commodity of which there is an exportable surplus. Since this country is committed to high tariffs and since foreign countries have turned to almost every conceivable form of restriction—export bounties, licensing systems, import quotas, mixing regulations, importing monopolies, etc.—the domestic allotment plan has been developed to give the American farmer the benefits of protection for that portion of his produce used domestically.

> Although economic isolation is not in the best interest of the welfare of the world as a whole, we must recognize that the trend has been decidedly in that direction. The American farmer has been a victim of economic nationalism at home and abroad. The allotment plan is frankly a means for equalizing the social costs of adjusting the agricultural plant of the United States to this situation.

With farm distress having reached the emergency stage, there is today a widespread feeling that the plight of agriculture reacts adversely upon the whole economic community. The purchasing power of farmers has been disastrously diminished. It is argued that it must be restored before it is possible to have business recovery. Many who heretofore have opposed the very idea of farm relief are now granting its necessity on social grounds. Because of this, there is the danger that the domestic allotment plan, coming to the fore during a general emergency, may be adopted without due consideration of the more important consequences that may result.

In short, the plan calls for distributing compensatory payments among producers on the basis of their past production. It derives the necessary funds from excise taxes levied on processors

and manufacturers. The plan is decentralized in the procedure of making the allotments to individual farmers. Farmers' claims to the payments rest upon voluntary signature. The contract calls for a restriction of production as the federal agency may prescribe.

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CHAPTER SEVEN—JANUARY, 1933

Control of the General Price Level

By Geoffrey Shepherd and Wallace Wright

Without question, one of the gravest defects in our present economic system is the unstable value of our money. Whenever the value of money changes, it works harm either to debtors or to creditors, and sometimes does damage to both; it takes purchasing power from one class and gives it to another, dislocates existing business relationships, and (in the case of an increase in the value of money) throws our whole economic machinery out of gear. One has only to look about him at the present time to see full evidence of the terrific havoc that an abrupt change in the value of money can work.

During the past 20 years, the value or purchasing power of the dollar has varied tremendously. If we regard the pre-war period as normal, we can say that before the war the dollar was worth 100 cents. Then came the war time inflation; the value of the dollar in terms of the amount of goods it would buy fell to 44 cents in 1920; it recovered part way to 68 cents by 1926, and finally (October, 1932) has risen to 106 cents.

Now a change in the value of the dollar is the same thing as an (opposite) change in the general level of prices. If we prefer to talk in terms of changes in the price level, we can say that the price level started out at 100 before the war, rose to 225 in 1920, fell to 151 by 1926, and from 1929 onward fell rapidly to 94 by October, 1932.[1]

The decline in the general price level after 1920 was accompanied by a world-wide business depression that was severe but comparatively short lived. The decline in the price level that started in 1929 has been accompanied by a still more severe depression, that is by no means short lived. It is now entering upon its fourth year, and no one knows when it will end.

Effect of Declining Price Level

A sudden decline in the general price level has a disruptive effect on our whole economic machinery, because all prices do not decline equally. The prices of raw materials decline farther than

wholesale prices; wholesale prices, in turn, decline more than retail prices; rents and taxes follow with a good deal of lag, wages descend rapidly in some cases and slowly in others,[2] while many charges—capital and interest payments on debts, railroad rates, etc.—decline very slowly indeed. As a result, the productive machinery of the country is thrown out of gear and cannot work properly, with some classes bearing an unduly large proportion of the general burden.

A decline in the general level of wholesale prices always bears heavily on the producers of raw materials, because the costs of distribution from producer to consumer do not decline as rapidly as other prices. The heaviest part of the burden is therefore passed back to the producer. Furthermore, a great decline in the commodity price level is generally accompanied by a business depression and a general reduction in demand, and most industries reduce their production accordingly. But farms cannot be shut down part-time like factories; in spite of the reduction in demand that has occurred during the present depression, agriculture has continued to produce as much as she did before the depression began.[3] This has laid an additional burden on agricultural prices.

The extent of the decline in the prices of agricultural products is clearly shown by the price data of the United States Department of Agriculture. The recent 34 percent decline in the general level of wholesale prices has been accompanied by a 60 percent[4] decline in average agricultural prices for the United States. For Iowa, the decline has been even greater; the prices of Iowa farm products have been cut 66 percent.[5] That is, Iowa farm products are now selling for one-third of their 1925-1929 prices.[6]

Where Prices Stand Now

The height of the general price level in the United States today, in relation to past years, is shown in fig. 16. The line shows the movements that have taken place in the general average level of commodity prices at wholesale during the past 130 years. In the preparation of this chart, the period of years from 1910 to 1914 was taken as the base period, and the changes in the price level are expressed as a percentage of that base.[7]

The price line in the chart shows three bold peaks. They resulted from inflation during the War of 1812, the Civil War and the World War.

The chart shows further that the general price level has now returned approximately to pre-war levels. In fact, during the latter half of 1932 the price level fell to 5 to 7 points below pre-war.

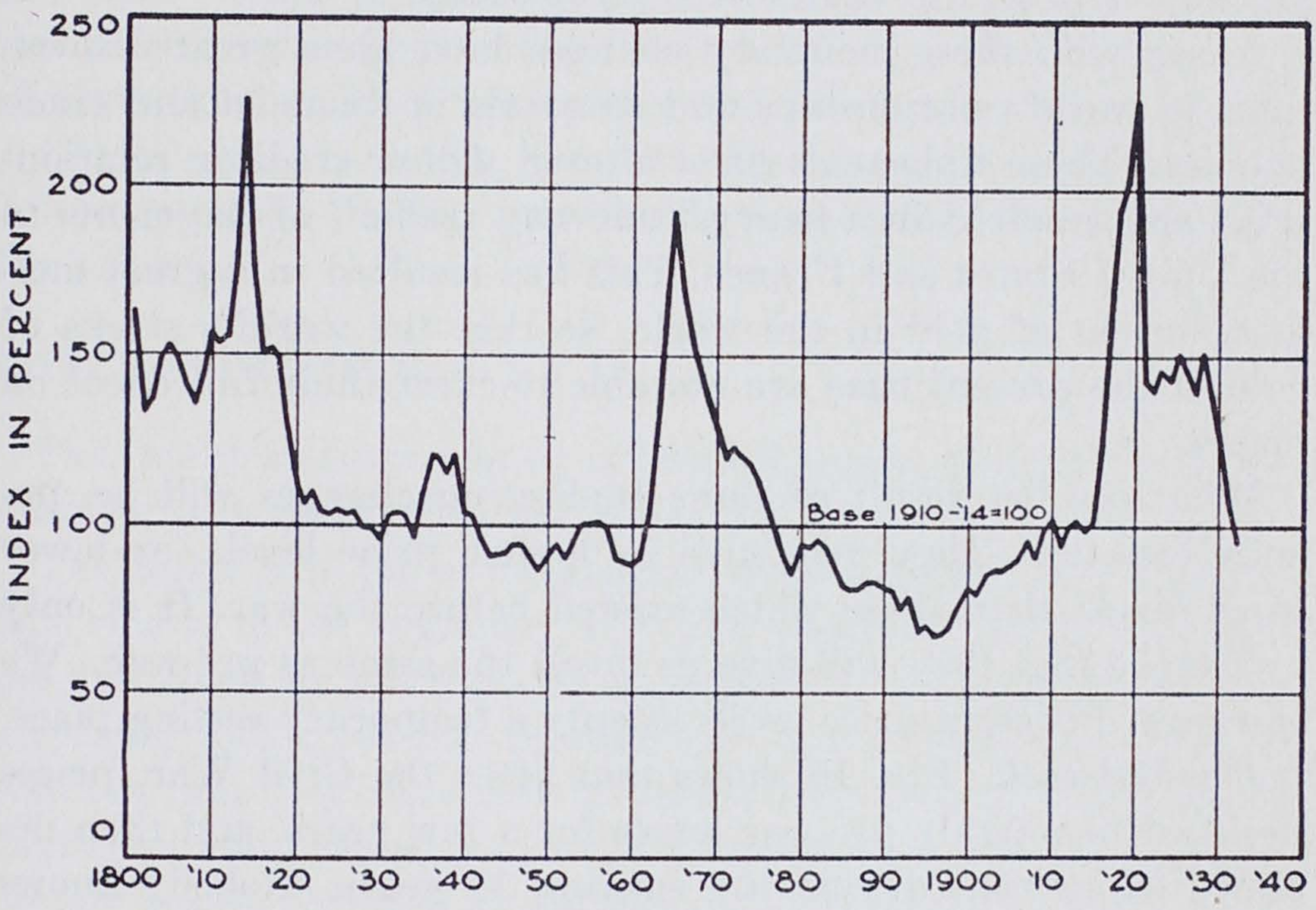

Fig. 16. The general price level in the United States, 1800-1932.

Some observers have noted this return to approximate pre-war levels with approval. They regard it as an evidence that the world has finally got the war and post-war inflation out of its system and returned to the sound monetary conditions that existed just before the war.

This opinion has very little basis in fact. It is now 19 years since the World War began, and the world monetary situation has passed through some revolutionary chances since then. The United States and France together now hold 60 percent of the world's monetary stocks of gold.[8] Most of the other countries of the world went off the gold standard during 1931; if they return to gold, they will probably revalue their currencies at lower gold values than before the war. France revalued her currency at one-fifth of its pre-war gold value, in 1928, before

the depression began. In fact, the United States is the only important country whose currency has the same gold value now as before the war.

Furthermore, the establishment of the Federal Reserve system in the United States has altered the monetary efficiency of gold; and in both England and the United Sttaes, gold has almost completely disappeared from hand-to-hand circulation, being now held in the vaults of central banks.

Along with these monetary changes have gone great dislocations in world relationships and reversals in financial and trade policies. These upheavals have altered debtor-creditor relationships and resulted in a heavy "one-way traffic" of payments to the United States and France. This has resulted in a great maldistribution of gold in the world, so that the world's stocks of gold at the present time are not able to exert their full effect on prices.

What the net result of these conflicting changes will be, nobody can tell. They may give us higher price levels, or lower price levels, than those which existed before the war. It is only by chance that they will give us levels the same as pre-war. We can regard present price levels as only a temporary resting place, not as bed-rock. Fig. 16 shows that after the Civil War, prices declined to roughly pre-war levels for a few years, and then declined 27 percent during the ensuing 15 years. Nobody knows whether history is likely to repeat itself now, or to reverse itself.

Some cyclic recovery of prices from the bottom of the depression may be expected to take place, but the disturbing thing is that nobody knows whether we have yet reached the bottom. The general price level, after falling almost continuously since 1929, stopped falling in June, 1932, and by September had risen more than a point. Observers then breathed easier. They hoped that the dollar, having returned roughly to its pre-war value, was going to stabilize at that point. But since September the general price level has been declining again, one or two points a month.[9] As this is being written, hogs at Chicago are making a new low since December, 1878,[10] and grain in Liverpool is smashing bottom records extending back 344 years.[11]

We have no assurance that our general price level has yet reached bottom. We cannot say that because prices are now back

to their pre-war levels, they will not go lower. We cannot assume that our price levels will remain stable at their present height in the future, any more than they have in the past. There is no certainty that if things are left to themselves, the price level will stabilize of its own accord. Unless the world intends to let its price levels drift up or down to whatever point the supply of gold, the distribution of gold, credit policies and other forces carry them, some form of control of the general price level is imperative. Several different plans for accomplishing this end have been advocated. Since we are now suffering from a fall in prices, the first objective of these plans is to inflate or reflate present price levels toward the levels existing a few years ago.

THE VALUE OF MONEY

The intent and purpose of reflation becomes clearer if we consider for a moment what the dollar really is.

The dollar is to the economist and the business world what the foot rule is to the engineer. It is the standard unit of measure, the yard-stick by which value is measured. Suppose that all engineering foot rules had increased in size during the last three years so that they were now 18 inches long instead of 12 inches; confusion and breakdown in the engineering world would immediately result. No new machinery or implements or tools would fit in with those already in operation. The obvious remedy would be, not to stretch the size of every product in existince to fit the stream of new goods made with the new 18-inch foot, but to shorten the foot rule down to its original length. That is what the reflationists purpose to do with the dollar; they propose to reduce its length or value or purchasing power to its previous status.

Changing the Purchasing Power of the Dollar

But how can this objective be achieved? How can the value of the dollar be reduced part way or perhaps all the way to its 1922-1929 level?

The reflationists answer this question by saying that as far as changes in its value are concerned, money is like other goods—its value rises if the supply decreases, and falls if the supply in-

creases. They say that since a decline in the general price level is nothing but an evidence of an increase in the value of money, the thing to do is to decrease the value of money; and this can be accomplished by increasing its supply or quantity.

With proper qualifications (chiefly concerning changes in velocity of circulation as well as in quantity of money) this reasoning is sound, and price history bears it out. From the Civil War on to the 1890's, the amount of gold in the world was not increasing as fast as the production of goods. The general price level declined steadily, culminating in the depression of 1892-96. Then came great discoveries of gold in South Africa and the Klondike, and the development of the cyanide process of extracting gold from low grade ore. A stream of new gold poured into the markets of the world. The general price level ceased to fall, and, instead, began to rise. This rise continued until the outbreak of the World War.

During the World War and afterward, all of the belligerent nations demonstrated how inflation (i.e., increasing the quantity of money) can send prices sky-high. Russia and Germany allowed the inflation to run on until the bubble burst; the supply of their money was so excessive that it became worthless. France was able to catch herself in time to prevent disaster, but her franc now is worth only one-fourth of its pre-war value. England and the United States also inflated their currencies, but less drastically; the English pound and the United States dollar have now returned to roughly their pre-war purchasing power.[12]

The argument is not whether inflation would raise prices; without any question, it would do that. The question is whether a policy of inflation should be undertaken; and if it should, whether inflation once started could be controlled. Many observers fear that inflation as a remedy for the present depression would lead to results that would be worse than the disease; some, because they are afraid that it would force the United States off the gold standard; others, because they believe that inflation would soon get out of hand and go too far; and others, because they consider that it would not last and that sooner or later another deflation would follow.

These questions should be thoughtfully considered. The answers depend largely upon the method or methods by which in-

flation is brought about. A number of different methods have been proposed. Roughly speaking, they may be grouped under three heads: (1) those which would work through credit inflation, (2) those which would work through currency inflation, and (3) those whose aim is to increase both currency and credit by reducing the gold value of the dollar.

This chapter deals with the first of these three methods, credit inflation. The next chapter will discuss the other two.

WHAT MONEY IS

In order to avoid confusion in our discussion of credit inflation, we must first get a clear understanding of what money is.

Currency or Cash Money

The business of this country is transacted with two kinds of money. The first kind is the everyday cash or currency that passes from hand to hand and back and forth over the counter. It is mostly paper—dollar bills, five dollar bills, and so forth—with some gold, silver and copper coin. The composition of this kind of money in circulation on Oct. 31, 1931, is shown in table XXXV.

TABLE XXXV. KINDS OF MONEY IN CIRCULATION[13]
(In Millions of Dollars)
Oct. 31, 1932

Kind of money	Amount	
Gold coin	445	
Silver coin	286	
Minor coin	113	
		844
Federal Reserve notes	2,689	
Other notes	2,095	
		4,784
Total money in circulation		5,628

The table shows that about 85 percent of our currency in circulation ordinarily consists of paper notes; the other 15 percent is made up of gold, silver and other coin.

Credit Money, the Major Element

The second kind of money is different from this physical cash money or currency; it is simply credit money. A merchant who borrows $1,000 from his bank in order to buy goods does not

draw out the money in cash. He simply signs his note to the bank for $1,000 and pays for his goods by checks on the bank. No currency changes hands, but $1,000 of credit money came into being when he raised the loan, and that $1,000 of credit money disappeared when he sold his goods and paid back his loan.

This kind of money—credit money—is just as real as cash money; and in its effect on prices it is many times as important as cash money, because there is about 10 times as much of it in use. Only about one-tenth of our total payments in this country are made in currency; the other nine-tenths are made by check.[14] When we look at the figures showing the changes that have taken place in our credit money during the last three years, we find that this credit money has decreased from 53 billions in the second half of 1930 to about 42 billions in the middle of 1932.[15] This means that during the last 2 years, 11 billion dollars of this credit money has disappeared. This situation is shown by the upper line in fig. 17.

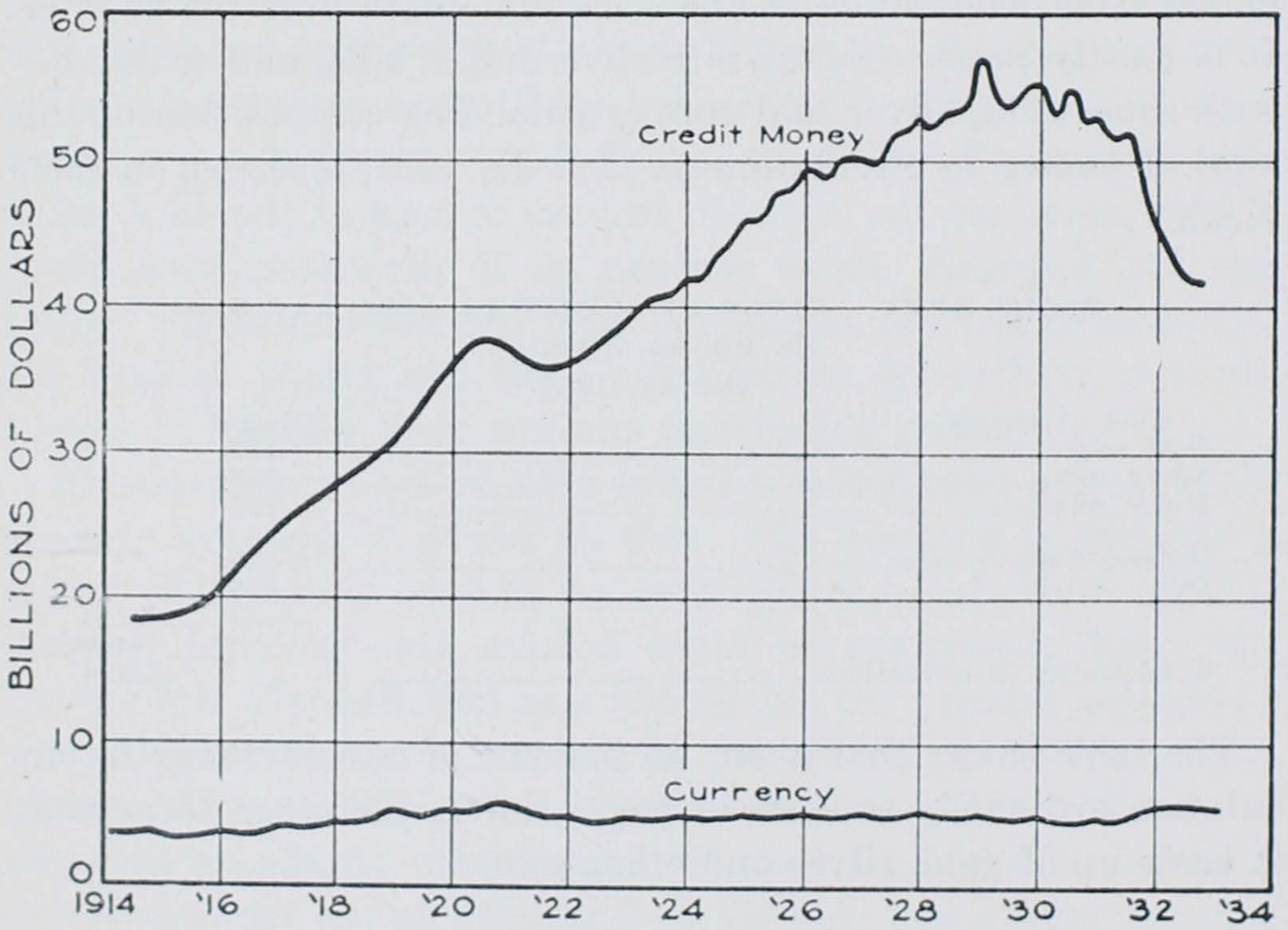

Fig. 17. Changes in the volume of money, 1914 to 1932.

In view of the tremendous shrinkage that has taken place in our credit money, the most logical inflationary measure would seem to be credit inflation. We will therefore turn first to a discussion of this method.

THE FEDERAL RESERVE SYSTEM

In normal times, the most important agency for controlling the volue of credit money is the Federal Reserve Banking System. The leading nations of the world each have a central bank at the head of their banking systems. In the United States, our central bank is the group of 12 Federal Reserve Banks located in different parts of the country.

Our Federal Reserve System, like the central banks of other nations, has two means of controlling the volume of money outstanding.

Control of the Discount Rate

The first means is the raising or lowering of the discount rate. This discount rate is the rate of interest that the central bank—in our case, the group of 12 Federal Reserve Banks—charges the ordinary city or country banks for funds it loans out to them. A country banks charges interest on the money or credit it lends to farmers, storekeepers and other individual borrowers; similarly, the Federal Reserve Bank charges interest on the money it lends to these banks. The rate of interest that it charges is called the discount rate.

Ordinarily, when a city or country bank lowers the rate of interest it charges its borrowers, these borrowers borrow more; when it raises the rate of interest, they borrow less. Money is like other things; if the price of a year's use of money (the interest rate) rises, people will take less of it; if the interest rate falls, they will take more, and the volume of money will expand. (In the case of money as with other goods, these statements hold true only if no changes take place in the demand. Large changes in demand may operate to more than offset changes in the interest rate. This is discussed fully later.)

Open-Market Operations

The second method of expanding or contracting the amount of credit money in the country is referred to as the "open-market operations of the Federal Reserve Banks." This is a formidable sounding phrase, but the thing described is really simple. When the Federal Reserve Banks find that credit money is contracting,

and believe that this contraction should be stopped, they go into the open market for United States securities and buy up large quantities of them from the regular city and country banks. The money which the Federal Reserve Banks pay these regular banks builds up the reserves of idle money of the regular banks.

Now banks do not like to have idle money lying unused and drawing no interest. The regular banks, accordingly, extend more credit, make more loans to their local customers. In ordinary times they can lend out 10 times as much as their reserves. This means that if a bank has sold $10,000 of United States securities to the Federal Reserve Bank, it now has $10,000 more reserves and can lend out $100,000 more than it could before; $90,000 of additional credit money has been created and "pumped into the country."

Conversely, when the Federal Reserve System thinks that credit money is expanding and should be contracted, it sells United States securities in the open market. Country and city banks all over the country buy them up. But this buying reduces the reserves of the country and city banks. If a bank buys $10,000 of United States securities, it has to reduce its loans to its local customers by $100,000; in that process $90,000 of credit money is destroyed. Thus do the "open-market operations" of the Federal Reserve Banks effect an expansion or contraction of credit money.

These two methods, raising or lowering the discount rate and buying or selling United States securities in the open market, are generally used in conjunction; the one reinforces the other. Central banks in Europe have used this control of the discount rate for generations. The Federal Reserve Banks in this country have been using both methods since the Federal Reserve System was set up in 1913. Bankers in this country have not has as much experience with credit control as European bankers have, but they have been gaining it. The job requires skill rather than effort. It is like driving an automobile along a highway. Under ordinary circumstances, a touch on the wheel now and then is all that is required to keep the automobile in the road; but the driver must keep constantly on the watch, otherwise small errors in direction will accumulate and the machine will leave the road.

The Federal Reserve System Has Tried to Check Deflation

The Federal Reserve System has been making use of these credit control methods during the present depression.

During the 1928 and 1929 boom, the Federal Reserve System repeatedly issued warnings, and raised the New York discount rate slowly from 4 to 5 and finally to 6 percent. They also sold large quantities of United States securities. The general banking and business world, however, did not pay much attention to these actions; some prominent bankers, indeed, opposed them.

Then came the stock-market crash in October, 1929, and the beginning of the depression. The Federal Reserve System reversed its policy and began a program of "easy money." The reserve banks started reducing their discount rates. On Nov. 1, the New York Federal Reserve Bank lowered its rate from 6 to 5 percent; thereafter it continued to reduce it steadily, half a point at a time, until by May, 1931, the rate was 1.5 percent. This was the lowest rate in its history.

The Boston, Chicago and Atlanta Federal Reserve Banks were less prompt and vigorous; they reduced their rates only half a point, and that not until near the end of 1929. The rest of the 12 banks took no action until February, 1930, when they cut their discount rates half a point. Thereafter they all continued to reduce their rates until the early part of 1931; by that time they were all down to 2.5 or 3 percent, and that was as low as they got. After October, 1931, the banks all began to raise their rates again.[16]

The reserve banks also used the second method of checking credit deflation, namely, open-market operations. During 1929 they had sold nearly all of their holdings of United States securities in an attempt to curb speculative inflation; in the second and third quarters of 1929 their holdings of these securities amounted to only 150 millions. Immediately after the initial stock crash in 1929 they reversed their policy and started buying heavily. Before the end of the year they held 500 million of United States securities. By the third quarter of 1931 they held over 700 million.[17]

International Complications Set In

In normal times these measures should have resulted in an expansion of credit money in the country of 6 or 7 billion dollars. If the United States were as much isolated from the rest of the world economically as it is geographically, these activities of the Federal Reserve Board might have played a large part in overcoming the depression. But in 1931, undermined by the effects of two years of depression, the weakened financial structure of several European countries gave way. In rapid succession Austria, Germany and England were forced off the gold standard. Europeans even began to fear lest the United States should be driven off the gold standard also. Precipitately they drew gold out of the United States, exactly as depositors make a run on a local bank when they think it is getting shaky—thereby often bringing on that which they fear. The international run on the United States drained 700 million dollars in gold—almost as much as the entire British stock—out of the country in two months. The stocks of gold in the United States were so large that we met these heavy drafts without difficulty, but the shock to our confidence was severe.

The Glass-Stegall Bill Releases Tied-up Gold

The situation had elements of danger in it. People in this country were afraid of the banks, and in that fear they began to hoard currency. Much of our gold was tied up as backing for Federal Reserve notes (currency), which ordinarily are backed by 40 percent gold and 60 percent commercial paper. The amount of commercial paper available, however, had become less than 60 percent of the notes outstanding; so the banks were being forced to increase the gold cover of their notes above 40 percent, to fill the gap.

The danger was that, if the hoarding of currency should increase, more Federal Reserve notes would have to be issued, and that would tie up more gold—perhaps enough to embarrass us should another international run be made on the United States. Early in 1932, therefore, the Glass-Steagall Bill[18] was enacted into law, stipulating that the Federal Reserve Banks could use United States securities in place of commercial paper as 60

percent backing for notes, whenever there was not enough commercial paper to go around. This bill made it possible to free large quantities of gold (previously tied up as backing for Federal Reserve notes) if necessary to meet foreign runs; it also permitted the Federal Reserve Banks to buy up much larger quantities of United States securities than had ever been anticipated before.

In April, 1932, therefore, the buying of United States securities was resumed on an unprecedented scale. Holdings rose from 809 millions in March to over 1,800 millions in July.[19] Since then they have remained roughly constant at about 1,850 millions—that is, at nearly 2 billion dollars.

The Reconstruction Finance Corporation

From 1931 on, some weak points began to show up in our credit structure. Many banks had been caught with "frozen assets"—mortgages and bonds that were good but could not be turned into cash quickly enough to meet the demand for liquid funds. To meet this situation, the Reconstruction Finance Corporation was formed in January, 1932, with a capital of 500 million dollars subscribed by the United States Treasury. Its purpose was to render frozen assets liquid. By the end of September, 1932, the Reconstruction Finance Corporation had authorized loans to the amount of 1,410 million dollars, nearly three times the amount of its original public capital, the additional amounts coming from private sources. Banks received 850 million dollars of this total; railroads got 264 million; building and loan associations, and mortgage and insurance companies got 247 million; land banks and other agricultural credit institutions got 45 million.[20]

Ordinary Methods Not Effective Now

This is the record of the efforts of the Federal Reserve Banking System and the Reconstruction Finance Corporation to promote reflation, or at least to check deflation. It can be objected that the Federal Reserve System did not move quickly enough nor decisively enough; but after it did start, it carried the regular methods of credit control to extremes never heard of before.

What has been the result? The Federal Reserve System has performed a real service in checking deflation and reducing or at least postponing some liquidation. But the blunt fact remains that as far as raising the price level is concerned the results are *nil*. Indeed, although the general price level flattened out from May to September of this year, it is now declining again.

What is the trouble? Why have these measures not "taken hold?"

The reason is that the forces of deflation are too powerful and widespread for the ordinary methods of bank credit inflation to take effect. We have said that these methods are like steering an automobile, in that ordinarily only a touch on the wheel is needed to keep the machine on the road. There is a further resemblance —these measures will not work if some obstruction pushes the machine off the road entirely. If you are driving an automobile and meet a heavy truck that forces you off the road into a muddy ditch, skillful handling of the controls may keep you from overturning, but it will not get you out.

That is roughly the situation the country is in at the present time. The world dislocations outlined in Chapter Two have forced our economic machine off the highway. Ordinarily, the supply of credit is the factor that controls the volume of money and the general price level; but at the present time the limiting factor is not the supply of credit but the demand for it. There is plenty of credit in the banking system, but the bankers are afraid to let go of it and people are afraid to take hold of it. Even when a manufacturer can persuade a banker to make him a loan, there is no profit in borrowing money to make automobiles, radios, furniture, etc., if the goods cannot be sold after they are made.

In ordinary times, producers and consumers keep calling for more credit or purchasing power than the banking system can supply. When the supply of bank credit or purchasing power is increased, then, it is taken in tenfold amounts by the general public; general purchasing power and demand is increased, and prices rise. But now the general public's demand for funds or credit or purchasing power is less than the supply; so measures for increasing the supply do not have their usual effect on price levels.

Reflation Has Not Yet Been Attempted

The ordinary methods of bank credit inflation are incompetent to deal with a major price decline such as that which we are now going through. They amount to nothing more than an attempt to check deflation. In times like the present, they cannot be considered as reflationary measures; they are only anti-deflationary.

The conclusion to be drawn is not that reflation has been tried and found impossible; the fact of the matter is that reflation has not yet been attempted. If we want reflation, we must turn to stronger measures.

SOURCES OF DATA

1. The Agricultural Situation, December, 1932, p. 20. The figures given in the preceding paragraph are simply the reciprocals of those given in this paragraph.

2. Farm wage rates are down 49 percent from 170 in 1929 to 87 in July, 1932. The Agricultural Situation, November, 1932, p. 21. But railroad wage rates have been cut only 10 percent.

3. United States Department of Agriculture Yearbook, 1932, p. 887. The index for 1931 was 111 (1919-1927=100). This figure has never been exceeded, even by the high years 1926 and 1928, when it stood at 111 also.

4. The general level of wholesale commodity prices has fallen from an average of 143.2 from 1925 to 1929, inclusive, to 94 in October, 1932. The index of agricultural prices has fallen from an average of 138 from 1925 to 1929, inclusive, to 56 in October, 1932. Base for both indexes, 1910-1914=100. The Agricultural Situation, December, 1932, pp. 20-21.

5. From an average of 144 from 1925 to 1929, inclusive, to 49 in November, 1932. Agricultural Economics Department, Iowa State College. Compilations based on U. S. Dept. Agr. data.

6. A fuller exposition of the points in this section is given in the first part of "The Causes of the Emergency," Chapter II in this volume.

7. The data plotted are the Bureau of Labor Statistics indexes of the general level of prices at wholesale, converted from their 1926 base to a 1910-1914 base by division by the 1910-1914 average, 68.5.

8. Federal Reserve Bulletin, January, 1933, p. 24.

9. The Annalist, December 16, 1932, p. 806.

10. Des Moines Register, market page, December 22 ,1932.

11. Op. cit., December 21, 1932.

12. These figures give the value of the different monetary in terms of their pre-war *goods* purchasing power. The *gold* value of the franc is now roughly one-fifth of pre-war; the index number of all-commodity wholesale prices for September, 1932, stood at 413 (1913—100). England's

index stood at 102, and the United States' index for September stood at 95. See the Federal Reserve Bulletin, November, 1932, p. 712, and the Agricultural Situation, November, 1932, p. 21.

13. Federal Reserve Bulletin, November, 1932, p. 690.

14. Irving Fisher, Booms and Depressions, Adelphi, 1932.

15. Annual report of the Federal Reserve Board, 1931, pp. 73-75.

16. Op. cit., pp. 9 and 51.

17. Federal Reserve Bulletin, March, 1932, pp. 143-144 and 180-181.

18. Federal Reserve Bulletin, November, 1932, p. 688.

19. Federal Reserve Bulletin, November, 1932, p. 685.

CHAPTER EIGHT—FEBRUARY, 1933

Monetary Inflation

By Geoffrey Shepherd and Wallace Wright

The more drastic inflationary proposals considered in this chapter are (1) currency expansion and (2) reducing the gold content of the dollar. We will deal with currency expansion first.

Currency Is Only a Small Part of Our Total Money

Programs of currency expansion have serious limitations. To begin with, currency is only a small element in our total circulating medium. Ordinarily, only 10 percent of our total circulating medium is currency or cash money; the other 90 percent is credit money. There usually is about 10 times as much deposit or credit money in existence as there is currency.

Some advocates of currency expansion, observing the 10 to 1 ratio that ordinarily exists between currency and credit money, believe that currency is the base or foundation, and that credit money is a sort of 10-story superstructure built upon it. They believe further that if the base were broadened the superstructure would widen proportionally; the issue of 1 billion dollars of currency would then result in an expansion of 10 billion dollars of credit money.

But this belief is not correct. The foundation of the credit superstructure is not currency, but gold. The amount of credit money outstanding is not determined by the amount of currency in circulation. It is determined by two other things, (1) by the stocks of gold in the country, and (2) by the state of business confidence, which determines how closely the limits set by the gold supply will be approached.

The stocks of gold in the country set the outer limits beyond which credit expansion cannot go, because the law specifies that our bank reserves (i.e., monetary foundation) shall be based ultimately on gold; and the law further specifies definite legal minimum reserves of gold that cannot be exceeded except under penalty. Ordinary country and city banks that are members of the Federal Reserve System must maintain a 10 percent reserve with their reserve banks (the percentage ranges from 7 to 13

according to the size of the city in which the bank is located) behind their deposit or credit money outstanding. They cannot expand their credit money, i. e., their deposits, to an amount more than 10 times as great as their reserves except by borrowing from Federal Reserve Banks. And the Federal Reserve Banks must maintain a 35 percent reserve of gold against their deposit liabilities, which consist mainly of the reserve accounts of the ordinary city or country banks that belong to the system.[1]

The stocks of gold in the country, therefore, are the foundation on which the superstructure of credit money is built. Because of the legal minimum reserve requirements mentioned above, the gold foundation ordinarily will not support a credit money structure more than 12 stories high—that is, more than 12 times the size of the gold foundation.

It is the second factor, the state of business confidence, however, that determines whether we will build our superstructure of credit up to that limit, or whether we will stop short of it. When confidence reigns, people ask freely for credit, feeling confident that they can repay it; and bankers lend it freely, for the same reason. It makes very little difference whether people take the credit money they borrow in the form of currency, or whether they prefer to leave it on deposit and write checks on it.

At the present time, our gold foundation is ample; but business confidence is shaken, and our credit superstructure has shrunk from 12 stories until now it is only 9 stories high—only 9 times the size of our gold foundation.[2]

Small Effect on Total Money

The factor determining the amount of credit money outstanding, then, is not the amount of currency or paper money in circulation, but the stock of gold in the country, which sets upper limits beyond which credit expansion cannot go; and the state of business confidence determines how closely the limits set by this stock of gold will be approached. Expanding the currency would not increase either of these two controlling factors. It might simply displace an equivalent amount of other money. The most that can be expected of an increase in the currency is that it will result in an increase in total money of the same amount. That is, if we were to increase the currency 1 billion dollars,

the most we could expect would be that it would increase our total money 1 billion dollars.

Figure 17 on page 114 shows that in the United States at the present time there is 41.8 billion dollars of credit money outstanding,[3] and 5.7 billion dollars of currency. The total money, then, is 47.5 billion dollars.

Some proposals for currency expansion have recommended the issue of 2 or 3 billion dollars of additional currency. These represent rather large amounts of currency, but they constitute rather small additions to our total money outstanding. Three billion dollars is only 6 percent of our total money of 47.5 billion dollars. The direct effect on prices of only a 6 percent increase in the total money would not be large; in fact it might be offset by other contrary effects. It is evident in fig. 17 that during the past three years our currency in circulation has increased from 4.5 to 5.7 billion, but our credit money has decreased from 55 billion to 41.8 billion. This is a net contraction of 12.2 billion.

The 1 billion dollar increase in currency since 1929 has not kept prices from falling, because it has been much more than offset by the 13 billion dollar contraction of credit money. To restore 1925-1929 average prices we would have to expand our currency at least as much as our credit money has contracted, say 12 or 13 billion dollars.

This is a pretty big order. It would mean expanding our present currency to three times its present volume. There is not free gold enough in the country for that. Most of our currency requires a backing of 40 percent gold; 40 percent of 13 billion is about 5 billion, and there is not that much gold in the United States; our total stocks of gold stand now at about 4.4 billion dollars, and most of it is already tied up as backing for currency and credit.

This gold-supply limitation is not insurmountable. It could be handled by reducing our minimum gold reserve requirements from their present 40 percent to say 20 percent, or by abolishing gold reserve requirements entirely. These possibilities are considered in later sections of this chapter.

A Surplus of Currency

A second difficulty confronting programs for currency inflation is that we are not a currency using nation; we are primarily

a check-and-deposit using people. We make 9/10 of our payments by check. We do not like to carry large amounts of currency around; it is bulky and inconvenient and is likely to be lost or stolen. We prefer to deposit most of our currency in the bank and write checks against it.

Accordingly, if a substantial amount of additional paper money were issued, it would not stay out in circulation. Most of it would be deposited in banks, and the banks would send it in to the central banks to be counted as reserves. It would simply build up the reserves of banks.

This would not do us any good. Our banks at the present time already have more reserves than they feel they can profitably loan out. The open-market operations of the Federal Reserve Banks in 1932 resulted in a great surplus of bank reserves, but these large reserves have not caused prices to rise. Building up these bank reserves still further by expanding the currency would not be any more effective.

There is one respect in which an expansion of the currency could help prices. If the currency were issued in such a way that it placed additional income and purchasing power in the hands of people who at present lack purchasing power, the spending of this additional purchasing power would increase the demand for goods and would raise prices. A great deal depends upon how the currency is issued and who gets it. We will consider that question next.

Putting the Currency in Circulation

If the federal government simply paid out the new currency in the ordinary course of its operations, the effect on prices would be *nil*. Government employees, war veterans and other recipients would simply deposit the currency in the bank, and draw checks on their accounts as before. Any currency that was not thus exchanged for bank deposits would merely render an equal amount of already existing currency excessive and cause it to be retired. No new purchasing power would have been brought into the market, and there would be no reason for prices to rise.

The only way to make the issue of additional money affect prices is to place it in the hands of people who will go out and buy things with it, things which otherwise they would not have

bought. The new buying must be *additional* buying. It is this increase in purchasing, this increase in demand, that raises prices. There is no use in issuing more money unless this will result in additional purchasing power in the market. Prices rose during the World War, not simply because the government issued more money, but because it went out and spent it.

This means that new government money issued now would raise prices only if it represented additional spending on the part of the government—spending for unemployment relief, for example, through a program of public construction work, or directly as subsistence payments to unemployed families.

Now there are only three sources from which the federal government can get funds for additional spending. One is increased taxation; the second is the sale of bonds, i. e., borrowing; and the third is the issue of paper money.

Increased taxation would meet with great popular objection at the present time, and in any case would probably fall short of supplying all the funds required. The second or third method would have to be used; the government would have to issue more bonds in order to make its budget balance, or else resort to paper money.

The prospect of issuing more bonds inspires alarm in some quarters. It is pointed out that already the federal deficit for the first seven months of the 1932-33 fiscal year is 1,272 million dollars,[4] and that this has had to be met by issuing an equal amount of bonds; and if the government increased its expenditures still further, the budget would be still further unbalanced.

Should the Budget Be Balanced?

Opinions differ, however, as to whether an unbalanced budget in time of depression is necessarily an evil. Some economists believe that during depressions the government should *not* balance the budget, at least not by reducing expenditures. They point out that during a boom, industrial expenditures are greatly increased, and during a slump, they are greatly curtailed. If government expenditures were *decreased* during a boom and *increased* during a slump, this would offset some of the fluctuations in business expenditures, partly stabilize employment and reduce

the severity of the swings from prosperity to depression and back again.

During the present depression, then, some argue that it would be good policy for the government to anticipate its construction expenditures for the next 10 years and embark upon them heavily now rather than 5 or 10 years from now. The government is already loaning or spending large sums for unemployment relief. If these sums were spent instead on self-liquidating projects and other construction work, the government would have a definite addition to its physical plant to show for its money, and would be able to spend less money on construction work in the future. We would then have, not a currency inflation, but a mild form of government credit inflation.

Probably the greatest limitation of this policy is that it requires financing by the sale of federal government bonds, and there is a limit to the amount of these bonds that the market can absorb. During 1932, the amount of United States government securities outstanding increased 3 billion dollars, from 17.5 billion to 20.5 billion.[5] During 1933 the amounts are expected to increase still further.

Opinions differ as to how many additional billions could be issued without burdening the market for all bonds, or perhaps arousing fears as to the ultimate solvency of the government. All that we can say is that somewhere a limit to additional security issues does exist, that a program dependent upon additional flotations of United States securities has limits, and that these limits probably lie this side of pronounced price inflation.

Inconvertible Paper Money

We have dealt with two sources of federal funds, increased taxation and increased borrowing by issuing bonds. Both of these have limitations. The third source would be free of these limitations, and it would not unbalance the budget. The federal government could issue currency that would not be convertible into gold. This currency would be inconvertible paper money, like the greenbacks that were issued during the Civil War.

Inconvertible paper money, however, is subject to two or three serious disadvantages. If only a small amount were issued, it

would simply displace an equivalent amount of our present currency. If a large amount were issued, it would not stay out in circulation any better than a large amount of convertible paper would. And finally, it would involve our going off the gold standard.

Now there is nothing sacred about the gold standard. A large part of the world is now off gold, and in view of the present world situation, is much better off than if it had tried to stay on. England went off gold in September, 1931, and its general price level has remained practically stable ever since; but price levels in the United States have fallen 10 percent and in France have fallen 13 percent.[6]

The gold standard may be judged, like anything else, simply on its merits. It may be that the merits or advantages of the gold standard are greater than its disadvantages; it may be that they are less. Let us see what these advanages and disadvantages are.

What the Gold Standard Does

When the gold standard is permitted to work freely, it has three merits. It serves as a check on extreme inflation, it facilitates international trade by keeping exchanges stable, and it keeps the value of the different nations' currencies in line with each other.

We have spoken of the superstructure of credit that is erected upon the foundation of gold. In the United States, the legal minimum gold reserve restrictions make it difficult to build this superstructure more than 12 or 13 stories high. Beyond that point, inflation is checked by the limitations of the gold supply.

Furthermore, if prices in one country rise more than those in other countries, that country becomes a good market for the sale of other countries' goods. Additional goods therefore flow in, and gold flows out to pay for them. This outflow of gold pulls prices down in line with their former relationship to prices in other countries, and equilibrium is restored.

Finally, international trade is facilitated when nations are on the gold standard, because goods can then be paid for in terms of currencies which remain fixed in relationship to each other.

Gold Standard Difficulties

These are the benefits that are usually associated with the gold standard. Since the war, however, the gold standard has appeared to be attended with great disadvantages. For example, England's return to her pre-war gold standard in 1925 appeared to be one of the factors that dragged her into financial and industrial troubles; her situation finally became so acute in 1931 that in order to get partial relief, she had to go off gold.

What appear to be shortcomings of the gold standard today, however, are almost entirely the result of arbitrary restrictions and regulations that have kept the gold standard from working; these restrictions in turn are a result of conflicting international trade and financial policies after the war. The trouble with the gold standard since the war is that it has been almost smothered by tariffs, exchange restrictions and other measures designed to keep it from working out its normal effects. Each country has attempted to regulate the operation of the gold standard to its own advantage. As a result, more than half the world has been drained dry of gold and is now off the gold standard; and the rest of the world has such a surplus of gold that its gold has lost many of its functions.

England benefited by going off the gold standard; her action relieved the pressure which foreign drains of gold were exerting upon her slender gold resources. But the United States is burdened with an excess of gold. It would not be any advantage to us to go off the gold standard in order to issue greenbacks; that would not relieve us of any adverse effects of gold, and it would rob us of what advantages there are in being on the gold standard today.

MEASURES TO REDUCE THE GOLD CONTENT OF THE DOLLAR

Currency expansion is only one of the many different methods of price inflation. Another method for attaining price inflation is the proposal to reduce the gold content of the dollar from its present figure, 23.22 grains of gold, to, say, 16 grains.

Some people reason that since the general price level has fallen one-third since 1929, the value of the dollar in turn has risen

one-third;[7] and that reducing the gold content of the dollar one-third would lower its value and restore the general price level to its former height.

There is a rather serious question about the second step of this reasoning. The gold content or gold price of the dollar has not changed for generations; it has remained fixed at 23.22 grains since 1837. It is the goods purchasing power of the dollar that has increased since 1929. Lowering the gold content of the dollar is only one step in the direction of lowering the goods purchasing power of the dollar; it would not lower the purchasing power directly, but only indirectly; and this indirect effect would follow only under certain conditions.

Let us try to trace the chain of cause and effect by which lowering the gold content of the dollar might lower its purchasing power, that is, raise the general price level.

Action Needed to Prevent Heavy Movements of Gold

The first effect of reducing the gold content of the dollar would be this: As soon as it became evident that the government was going to reduce the gold content of the dollar, the natural thing for people to do would be to take currency—five-dollar bills, etc.—to the bank and ask for gold in exchange. They would get 23.22 grains of gold for each dollar of currency presented.

After the gold content of the dollar was reduced to 16 grains, people who had previously presented currency and demanded gold in exchange for it would then reverse the process; they would present the gold they had obtained and demand currency for it. For each 23.22 grains of gold they presented, they could then demand $1.45.[8] The operation of exchanging currency for gold before the gold content of the dollar was reduced, and then reversing the process afterwards, would net them 45 percent on their money. People in foreign countries could do the same as our citizens.

Accordingly, the first effect of reducing the gold value of the dollar would be a general scramble for gold. A great internal and external drain of gold would take place. The temporary withdrawals of gold would be heavier than our stock of gold could meet. For the time being, the United States would have to refuse to pay out gold—that is, it would have to go off the

gold standard. She would have to take this action early, because people would start to draw out gold as soon as reducing the gold content of the dollar began to be seriously considered in Congress —long before the reduction could actually go into effect. Business confidence would be somewhat disturbed by the United States going off gold, but how much disturbed, no one can say. In any case, the United States could return to the gold standard without delay as soon as the reduction of the gold content of the dollar was effected.

Suppose, then, that the United States Treasury announced its intention to reduce the gold content of the dollar from 23.22 to 16 grains. Suppose also that it went off the gold standard until this reduction had been effected, and then returned to gold. Would this action raise the general price level in the United States?

The answer depends upon two things—upon the reaction of people in the United States, and upon the reaction of people in foreign countries.

Reactions Abroad

Let us first consider the reactions abroad.

We can use France's response as an illustration of what would be likely to happen abroad if we reduced the gold content of the dollar. At the present time, 25.6 French francs have the same gold content as one United States dollar. Both countries are on the gold standard. The ratio between the gold values of the two currencies is therefore fixed, and the gold behind 25.6 French francs will buy $1.00 worth of goods in the United States.

If the gold content of our dollar were reduced from 23.22 grains to 16 grains (a reduction of about one-third) the gold behind the 25.6 French francs would then be worth $1.45 instead of $1.00. French importers could therefore buy gold in France, send it to the United States, and get nearly one-half more United States cotton or wheat for it than they could have obtained previously (unless prices in the United States had already risen).

If the French government permitted French importers to ship gold out of France to the United States for this purpose, French purchases of United States cotton and wheat would increase. As a result, the price of cotton and wheat in the United States would

rise. This rise in prices would soon spread to other commodities, directly because of substitution and competition, and indirectly because of the stimulating effect that a rise in prices of one group of commodties would have on all business.

The prices of United States industrial stocks might be stimulated by foreign buying. This buying would be purely speculative; it would be based on an expectation of United States industrial stocks rising as a result of the gold content of the dollar being reduced. It would not be based on the knowledge that foreign gold would now buy more United States stocks than before, because the dividends paid on those stocks would be worth less than before in terms of foreign gold.

Objections from Foreign Governments

These things would happen, as we have said, if the French government would permit them. It is most unlikely, however, that France would let them happen. There are two reasons for this.

In the first place, France already has a high tariff against wheat, in order to protect her own wheat producers from foreign competition. Her wheat producers would protest if a lowering of the gold value of the United States dollar should enable United States wheat to climb these French tariffs and compete with French-grown wheat. Her farmers would ask for a 50 percent ad valorem increase in the French tariff on wheat, enough to offset the reduction in the gold content of the dollar; and if this were granted, United States wheat exports to France would not increase, and United States wheat prices would not rise on that account.

Even if the French government did not listen to the complaints of its wheat producers, it would probably give attentive ear to objections from its treasury. If French importers started to ship gold out of France for purchasing goods, gold would flow out of France to the United States. Now France does not like to lose gold. She would probably either raise her tariffs or prohibit exports of gold (i. e., go off the gold standard) or ration and restrict her foreign exchange. Other countries, both those that were on the gold standard and those that were not, would do the same thing.

If foreign countries did not take these steps at once, they would sooner or later be driven to take them by the march of events. Unless prices in the United States rose 45 percent at once, gold would flow from the rest of the world to the United States. We would be offering more goods per grain of gold than before. But we already have more gold than we need and other countries have less. They would quickly act to stop their gold draining out. France is notoriously tenacious of gold, prizing it as a "war chest" as well as for peace-time monetary purposes. The simplest way for them to stop gold flowing to the United States for the purchase of goods would be for them to raise their tariffs 50 percent ad valorem. That would more than offset the reduction in the gold content of the dollar.

The interests of the foreign nations in this case would coincide with the interests of the world as a whole. From the world point of view, an additional flow of goods from the United States and an additional flow of gold to the United States would be extremely undesirable. It would accentuate a condition that has played a leading part in bringing on the present depression, and would run directly counter to present and pending negotiations between the United States and foreign countries, designed to work out measures which will *reduce* the flow of gold to the United States and get it out in the rest of the world where it is needed.

If some foreign countries permitted gold to be shipped out for the purchase of goods in the United States, some stimulation of our export commodity prices would result. If *all* foreign countries refused to let gold be shipped out, we would not get any additional foreign buying of our commodities, and we would not get any upward stimulus to our prices from that source.

It seems likely that most foreign countries would refuse to let gold be shipped out. We would therefore have to depend chiefly upon the reactions of our own producers and consumers. Let us study what reactions we might expect from our own people.

Domestic Reactions

To the extent that people in the United States looked at their five-dollar bills and other currency and said, "Well! This money is worth one-third less gold than it was yesterday. I had better

spend it before it depreciates any further,'' a rise in prices would result. The increased velocity or turnover of money, i. e., the increased purchasing of goods, would increase the demand for goods and raise prices generally.

Perhaps, however, people would not act so hastily. They might reason to themselves, ''After all, the *purchasing power* of my dollar has not changed. They have knocked a third of the gold out of it, but my dollar will buy the same amount of *goods* today as it would yesterday. The English pound will buy as much goods in England today as it would when England went off the gold standard entirely in September, 1931. I think I'll wait and see what prices are going to do before I do any extra buying.'' If this became the prevailing attitude, there would be no reason for prices to rise. We already have a great surplus of gold in this country, and economizing in the use of gold by reducing the gold value of the dollar would not directly and of itself make prices rise.

A final alternative should be given consideration. People might reason still further, ''I realize that the goods value or purchasing power of my dollar has not changed. But whether or not the quantity theory of the value of money holds in the short run, I believe that the commodity theory holds in the long run. I believe that sooner or later prices will rise, because, regarding gold simply as one important commodity, the decreased gold value of the dollar will eventually develop into a decreased value or purchasing power of the dollar for all commodities. That means higher prices eventually. I shall therefore go out and buy now, before prices begin to rise,'' and this increased buying would cause prices to rise. Therefore, to the extent that people believed that money is valuable fundamentally because of the intrinsic value of the gold behind it, they would expect a reduction of the gold content of the dollar to lead sooner or later to a reduction of the general purchasing power of the dollar, i. e., a rise in prices.

Nobody can say with assurance which of these three alternatives would result—an immediate rise in prices, a slow rise in prices, or no rise at all. Some people would probably react one way, some would react another way. There is no reason to suppose that a rise in prices equivalent to the reduction in the gold content of the dollar would immediately and automatically result,

but it seems probable that *some* general rise in prices would develop.

Furthermore, no one can say with assurance how far the general rise in prices would go. A few weeks ago New Zealand reduced the exchange value of her currency 25 percent, and the prices of her speculative commodities—wheat, etc.—rose at once, almost by the full amount of the reduction in the value of the currency.[9] But that rise in prices came through the effect of increased foreign buying of New Zealand goods. The volume of New Zealand products is comparatively small, and other countries did not take steps to prevent their purchases of New Zealand goods from expanding. But as we have seen, they would probably take steps against a large country like the United States.

Furthermore, New Zealand went off the sterling standard for much the same reason that England went off the gold standard in 1931—lack of sufficient gold and other means of payment to meet her foreign obligations. New Zealand's going off sterling, like England's going off gold, relieved the financial pressure on prices. But the United States is in the opposite situation; we are not suffering from a shortage of gold or other money.

Accordingly, the rise in our prices would depend chiefly upon our domestic reactions, and it might be less, or more, than an amount equivalent to the reduction of the gold value of the dollar. The amount of the rise in prices would depend upon the extent to which the rise fed on itself; it would depend upon the extent to which rising prices stimulated more buying, and the increased buying caused a further rise in prices, and so on up.

It is possible that the rise in prices might get out of hand. It is unlikely, however, that this would happen. The country is now awake to the danger of uncontrolled inflation and deflation, and public opinion would support measures for keeping the inflation under control. It is easier to curb inflation than it is to stop deflation. The Federal Reserve Board had difficulty in checking inflation in 1929, not because its powers were inadequate, but because the public did not want inflation to stop.

IF PRICES ROSE, WOULD THE RISE ENDURE?

The question may be asked whether a rise in prices induced by monetary measures would be likely to endure, or whether it

would be only temporary. The answer to this question depends chiefly upon whether other measures were put through, designed to correct or offset the fundamental causes of our present low prices.

The world-wide decline in prices since 1929 was not brought on by a shortage of currency nor by a scarcity of gold in the United States, and it is not likely to be permanently cured by expanding currency or economizing the use of gold in the United States. If the decline in prices in the United States had been caused by a shortage of currency or scarcity of gold in this country, measures on our part to expand currency or economize gold might be effective and lasting remedies. But the decline in our prices was not brought on by either of these monetary factors, and it is not likely to be cured by the measures proposed.[10]

Our disease is part of a world disease; what we and the rest of the world are suffering from is clogged circulation. It was caused by the cessation of the great war-time expenditures, by the outbreak of nationalism after the war, and by the change in the position of the United States from the world's greatest debtor to one of the world's greatest creditors, which conflicts with her role as a high tariff nation and great exporter of goods. Other nations owe us heavy debt and interest payments, but we make it difficult for them to make payments in goods. Accordingly the other nations have had to pay us in gold. For several years after the war we loaned them the money to pay us, but this only partially mitigated the heavy flow of gold to this country. Foreign nations raised their tariffs, not only to protect their producers but to cut down the outflow of gold. When we ceased loaning abroad from 1929 on, that support to foreign purchasing power gave way, and the international economic machinery has been working badly ever since.

Monetary Measures Are Only Emergency Measures

As an emergency measure monetary inflation may help. But it would be only an emergency effort. It would not go to the roots of the trouble.

The evidence seems to be that a reduction in the gold content of the dollar would probably not benefit us for very long, unless it were accompanied by other measures to cure the fundamental

causes of the present depression. These measures would include, for instance, a gradual reduction of tariffs all over the world, particularly in the United States because tariffs conflict with our new world-creditor role; some reduction of the debts owed to us by other nations; temporary reductions in United States agricultural production, perhaps by some such measure as the domestic allotment plan. These are remedies for the fundamental troubles, and they cannot be instituted overnight. But full recovery is not likely to take place until they are put into effect.

> Numerous other inflationary proposals are engaging public attention at the present time. In the appendixes on the following pages we are merely drawing attention to some of them, without attempting any detailed analysis.

APPENDIX I

Would a Rise in the General Price Level Help Agriculture?

When the general level of prices at wholesale declines, the prices of agricultural products usually fall faster than the general price level, because the costs of distribution from producer to consumer remain relatively constant. Since 1929, for example, the general price level has fallen 48 points, but agricultural prices have fallen 87 points.[11]

If the general price level were to rise now, would agricultural prices rise more rapidly and perhaps return to their 1929 relation to other prices? Or would they rise only sluggishly, so that agriculture would not be greatly benefited?

The answer appears to depend upon how the rise in the general price level were brought about. If the rise were the result of world-wide recovery, then agricultural prices could be expected to rise more rapidly than the general price level.

If the rise in the general price level were brought about by reducing the gold content of the United States dollar, and if foreign nations permitted gold to flow to the United States for the purchase of goods, then the prices of *export* agricultural products—wheat, cotton, etc.—would lead in the rise. We have

seen, however, that foreign countries would not be likely to let this happen.

If the rise in the general price level resulted from currency or credit inflation in the United States and was not accompanied by a similar rise abroad, and no reductions were made in foreign tariffs abroad, then the prices of our agricultural export commodities, which are largely world prices, would probably not rise very much. They would be held down by low world prices and low foreign demand, and their rise would probably be less than the rise in the United States general price level.

Any rise in agricultural prices, however, would render it easier for agriculture to meet her fixed charges, and these are one of the most troublesome elements in the cost of operating a farm today.

APPENDIX II

Velocity of Circulation

The discussion in the main body of the bulletin has made very little reference to one important element, the influence of changes in the velocity of circulation of money.

This element is probably as important as changes in the quantity of money. It has not been stressed in the general discussion, for three reasons. First, most of the proposals for price inflation have aimed mainly at increasing the quantity of money rather than the velocity. Second, changes in the velocity of money generally are associated with changes in the quantity of money, so that the analysis based on quantity alone is substantially accurate. And finally, if velocity is left out, the presentation is simplified, and every measure of simplification is needed in dealing with as complicated and technical a subject as monetary inflation.

APPENDIX III

Bimetallism

Proposals have been made for the federal government to broaden the currency base by remonetizing silver and adopting a bimetallic standard.

These proposals call for the purchase of several billions of

dollars of silver by the federal government, which would then issue silver certificates based on the metal purchased.

This method of currency expansion is open to the same difficulties that beset other forms of currency expansion. It has the further disadvantage that the money expended by the government would not result in an addition to the capital equipment of the country. Money spent on roads or other engineering projects would leave the country better equipped than it was before; money spent in the purchase of silver would leave only an empty silver mine in its wake. And finally, bimetallism involves the difficulty of keeping the mint value ratio between the two metals in line with the continually shifting market value ratio. In Bryan's time the market ratio was about 16 to 1; at the present time, the ratio is about 80 to 1.

APPENDIX IV

Symmetalism

Symmetalism is a simpler method of remonetizing silver than bimetallism. When a country is on the gold standard, the standard of value is gold. When a country is on a symmetallic standard, the standard of value is a fixed combination of gold and silver, for instance 80 percent gold and 20 percent silver. Under symmetalism, we would have lying in our bank vaults, not bars of gold, but bars of 80 percent gold and 20 percent silver.

Adopting symmetalism is not very different from reducing the gold value of the dollar. It simply allows a given amount of gold to go further. It has the disadvantage that it involves the purchase of additional monetary metal, but it has the advantage that it would, at least in some sense, provide a full metallic backing for the currency. Probably reducing the gold value would be the better plan for any one nation to adopt, but symmetalism would be the better if world action were being considered.

APPENDIX V

Reducing Gold Reserve Requirements

The twelve Federal Reserve Banks are required by law to carry a minimum reserve of 40 percent gold against their note

issues, the other 60 percent being commercial paper (or, since the passage of the Glass-Steagall act, government bonds). They are also required to carry a minimum reserve of 35 percent gold against their deposit liabilities.

These minimum reserve ratios were originally worked out and adopted when gold coins circulated as hand-to-hand currency. The banking system then needed to carry a reserve of gold to meet the demand for gold coins from its own citizens, as well as from the citizens of other countries. It needed to carry a reserve of gold to meet a domestic or internal drain as well as an external drain.

Since the war, however, this situation has changed. Gold coins have largely disappeared from circulation; we use bank notes or checks, instead of coin. Hardly anyone sees gold any more. The need for a reserve of gold to meet an internal drain is much less than it used to be (except under panic conditions when people might start hoarding gold). Our present reserve requirement of 40 percent may therefore be higher than necessary. Some responsible authorities believe that our existing reserve requirements should be lowered.

The Gold Delegation of the League of Nations, for example, after studying this question, summarizes its opinions as follows:

> "In our opinion, this whole system of defined ratios has proved itself in the light of the special circumstances of post-war years to be too rigid and inadaptable. Now that gold coin is in circulation only in very few countries and an internal drain cannot take place (except in moments of violent panic or hoarding as bullion), the reserves are primarily required to meet possible deficits in the balance of international payments. Each country in determining the gold reserve required should therefore consider in the first instance what the range of movement in its balance of payments is likely to be.
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> . . . . . .
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> "We are of opinion that it would be advantageous, as we argued in our first Interim Report, to reduce the reserve ratios from their present high levels. If this were done, the immediate effects would be to free the hands of the Central Banks by enlarging the free margin of their gold reserves which they can use for international payments without endangering the legal minimum ratio."[12]

What effect would a reduction in these legal minimum reserve ratios have upon prices?

If our stocks of gold were getting low, it would have a very beneficial effect, for when reserves of gold fall close to their minimum legal limit, bankers put up their discount rates. This

attracts gold and builds up their reserves, but it also contracts credit, depresses business activity and lowers prices.

If present low prices in the United States could be attributed to insufficient stocks of gold in the United States, then lowering the minimum gold reserve requirements would help. It would relieve bankers of the necessity of raising their discount rates and thus contracting credit. When England suspended gold payments altogether in September, 1931, that action removed the downward pressure which a foreign drain of gold was exerting on English prices.

At the present time, however, gold reserves in the United States are not down close to the legal limit of 40 percent. Our gold reserves at present are 63 percent, and they are still growing. Lowering the legal reserve ratios now would not necessarily have any anti-deflationary effect. It would simply increase our already large surplus reserves. It would *permit* a substantial inflation, it would raise the "ceiling" toward which prices could rise, but it would not *cause* any inflation. It would permit prices to rise, but it would not give them any upward push.

The word of caution that was spoken in the part of this chapter that deals with the effect of reducing the gold content of the dollar applies here also. Lowering minimum gold reserves, like reducing the gold content of the dollar, would allow an inflation of prices to go to greater lengths than it could go under present regulations, before being checked by limitations of the gold supply. The danger of too much inflation seems remote at the present time, but it might become a real danger 5, 10, or 15 years hence.

SOURCES OF DATA

1. E. A. Goldenweiser. Federal Reserve System in Operation. McGraw-Hill Book Co. 1925. pp. 79 and 86.

2. This figure is obtained by dividing the total deposits of all banks in the United States, 41,779 million dollars, by the United States monetary gold stocks, 4,429 million dollars. Data given in the Federal Reserve Bulletin, January, 1933, pp. 11 and 16.

3. Federal Reserve Bulletin, January, 1933, pp. 13 and 16. The data used to represent "credit money" are the total United States bank deposits, exclusive of interbank deposits.

4. Des Moines Register, Feb. 4, 1933.

5. Federal Reserve Bulletin, January, 1933, p. 21.

6. Federal Reserve Bulletin, January, 1933, p. 36.

7. As a matter of fact, it has risen 50 percent; but a one-third reduction of the gold content of the dollar would increase the gold purchasing power of the dollar 50 percent.

8. That is, 23.22 divided by $16 = 1.45$.

9. The statements concerning New Zealand are based only upon a brief report in Time, Jan. 30, 1933, p. 16. Fuller information is not yet available.

10. For a more comprehensive statement of the causes of the present emergency, see Chapter II.

11. The Agricultural Situation, February, 1933, pp. 14-15.

12. Report of the Gold Delegation of the Financial Committee. League of Nations, Geneva, 1932.

CHAPTER NINE—FEBRUARY, 1933

How Tariffs Affect Farm Prices

By Theodore W. Schultz

THE NATURE OF TARIFFS

A tariff is a tax collected on a commodity as it crosses a national boundary. The payment is made to the State by the person who brings the commodity in.

The term "tariff" was first used to refer to a table that listed those articles, with their corresponding taxes, that were not permitted free entrance. At present these tables are usually called schedules. They are extremely complicated affairs. The Tariff Act of 1930, for instance, is a document of 283 pages. In it the dutiable commodities are divided into 16 schedules with a total of 1,814 paragraphs, many of which in turn list duties on a large number of articles. In addition to the dutiable list there are 353 sections, nearly 100 pages, of special provisions.

Tariff systems are based upon either ad valorem or specific duties, or upon a combination of the two. Ad valorem duties are usually a fixed percentage of the value of the goods and when the value changes, the duty also changes. Specific duties are based upon a unit of weight, measure, or count—so many cents a pound, so many cents a dozen, or so many dollars a ton, and so on. Specific duties are much simpler to administer than are ad valorem duties.

PURPOSE OF TARIFFS

Tariffs like other taxes have two main purposes, (1) to raise revenue, and (2) to discourage the activity that is being taxed. In the modern State the chief purpose of taxes, other than tariffs, is to raise revenue, while tariffs are used largely to check imports.

Before the war all countries raised most of their revenues with tariffs. At the present time most advanced countries depend largely upon income taxes.

The revenue aspect of tariffs is today of secondary importance; their protective features are being increasingly stressed. But even so, a substantial part of the revenue of our federal budget

is raised by tariffs. They contributed an average of $548,000,000 yearly to the receipts of our federal government from 1927 to 1931, which was 14 percent of the total. Before the war, however, they provided over half the national revenue. "Free-trade" Great Britain, in 1930, raised $588,000,000, or 15 percent of her budget, by tariffs.

The United States has no strictly revenue tariffs. The duties that are enforced were enacted to protect domestic producers. They were not planned primarily for thir revenue-raising ability. Obviously, a duty that keeps foreign produce from coming in fails as a revenue measure. Duties on tea and coffee, since they cannot be produced here, would be examples of revenue tariffs. Since domestic tomatoes do not ripen during the winter months, unless grown in hothouses, the duty of 3 cents a pound on them is, in effect, a revenue measure during December and January. The tariff on sugar produces one-fourth of our customs receipts. But, to make the tariff, for instance on sugar, a purely revenue duty, it would be necessary to levy an equivalent excise tax on all domestic production. This would cancel its protective feature.

But why should a country discourage imports? No person thinks of making everything for himself. Are there some special reasons why a nation should do so? Before taking up the specific arguments for tariffs and the protection that they afford, it is necessary to understand some first principles that underly all trade.

In simplest terms international trade rests upon two fundamental propositions: (1) The law of comparative advantages, which determines the kind and quantity of goods and services exchanged, and (2) the fact that imports pay for exports. Both of these will be examined in turn, after which their bearing on tariffs should be considered.

COMPARATIVE ADVANTAGES

Why Men Trade

Why do men trade? The answer is that men trade to gain the advantages of specialization. Every man has a variety of needs. He wants food, shelter, clothing and recreation. He could provide himself all of these by being a farmer, carpenter,

tailor and actor in turn. But experience teaches that it pays each man to spend his time in doing that which he can do best. By specialization and exchange, with the farmer growing corn and feeding hogs and the carpenter building homes, both are enriched.

The simplest form of trade is the exchange of goods and services produced in the same locality.

Most trade, however, involves the exchange of goods between different localities. This is called regional specialization and it has economic advantages as clearly as individual specialization. Just as some persons are better fitted to do certain things, so some localities, because of soil, climate or nearness to power, raw material and markets are especially adapted to produce certain goods. No one questions whether or not farmers of Iowa are better situated to grow corn than those in North Dakota and Mississippi or that North Dakota excels in wheat and Mississippi in cotton.

Climate, topography and soil cause the farmers of New York, Wisconsin and Minnesota to specialize in dairying. Since New York is near to large cities it produces mostly fluid milk; Wisconsin and Minnesota, being more remote from large markets, find it advantageous to use much of their milk to make butter and cheese.

Our oranges, grapefruit and lemons come from California, Florida and Texas; our iron ore is taken mostly from upper Minnesota. We associate automobiles with Detroit, tires with Akron, steel with Pittsburgh and motion pictures with Hollywood.

Gain from International Trade

But regional specialization does not stop at national boundaries. Nor are the gains less when the exchange involves international trade.

Brazil is especially well suited to grow coffee. Cuba, with her rich soil and favorable climate, can produce cane sugar more cheaply than the United States. India and Java excel in tea, Japan and China in silk, and Malaya in rubber. But these countries are not favorably located to grow corn, cotton and wheat. Trading their coffee, sugar, tea and silk for our pork and lard, cotton textiles and flour is as clear a gain as the regional exchange of goods within a country.

It would be absurd for the United States to use her resources to grow, for example, bananas. Likewise, for Jamaica, Costa Rica, Honduras and Panama to shift from tropical fruits to wheat production would be equally foolhardy. Trade between the United States and these Central American countries makes it possible for each to continue to produce that for which it is best adapted, and as a result all enjoy a greater variety and abundance of goods.

With unrestricted trade among nations different parts of the earth's surface are put to those uses for which they are best suited.

The benefits of international trade are not limited to agriculture where climate, soil and topography are all important. Similar advantages are found in the exchange of manufactured goods.

The United States can make many mass-produced industrial products for the rest of the world more cheaply than they can produce them for themselves. The large scale production methods used in making automobiles, tires ,typewriters, sewing machines, safety razors and similar goods, give our manufacturers a distinct advantage in their production. On the other hand, Europe can produce handicraft articles much more cheaply than we can. The skill and time that are needed to make fine lace, fancy embroidery, toys, artistic pottery, silverware, hand decorated leather articles, optical instruments and numerous other specialties, are not ours.

In the aggregate the people of the United States are richer by trading agricultural staples and certain mass-produced manufactured goods for the handmade articles of Europe. We gain by getting a thousand and one specialties which, because of the amount of labor and skill they require, we cannot afford to make for ourselves. They in turn benefit by paying less for their bread and meat and automobiles than it costs to produce them in Europe.

It is important not to conclude from the preceding argument that trade between individuals, regions and countries is profitable only when a commodity can be made more cheaply by one than by the other. Trade involves many commodities and the gains of specialization and exchange depend not upon absolute, but upon relative advantages and disadvantages.

A good doctor may be able to operate a typewriter better than his typist. But it will nevertheless pay him to specialize in medicine and to hire the stenographic help he needs. Take another illustration. The same field in a farm may be best both for growing corn and for the site of farm buildings, but obviously it cannot be used for both. All things must be considered together. It is the relative, and not the absolute difference in advantages that is important. Even though the United States were superior in every field of production, trade between it and other countries still would be profitable. A country gains most when it speciializes in those things in which its comparative advantage is greatest.

The rise and expansion of foreign trade among western countries is closely related to their advance to higher standards of living. International specialization is the very foundation of the consuming habits to which we have become accustomed. Each day sees us draw upon the skill and resources of men and lands of many countries.

Tariffs Restrict Trade

Tariffs are the principal means by which specialization among nations is restricted. Tariffs not only stop regional division of labor but also limit the size of business enterprise, the use of machinery and the specialization of labor. Large plants require large markets. In this the producers, especially manufacturers, of the United States have had a distinct advantage over European producers. In spite of tariffs the United States is a large market. One can travel east and west four days and north and south two days without crossing a tariff barrier. In contrast, Europe with nearly the same area, is divided into 27 areas each isolated from the other by tariff walls. A General Motors or U. S. Steel corporation would be as great a misfit in any one of the 27 "walled in" areas of Europe as a 70-ton dinosaur in an Iowa cornfield.

Note, however, that the corn-hog farmer is an international specialist; he is even larger than U. S. Steel; the United States is too small a market for his lard; he is today dependent upon a world market. Can he continue to specialize in corn and hogs in view of the present international warfare in tariffs?

IMPORTS PAY FOR EXPORTS

An Individual's Income and Outgo

The second basic principle that runs through all international trade is that over a period of years imports pay for exports. The international accounts of a nation must balance. Commodities and services bought from foreigners pay for those sold to them and vice versa. If one is stopped sooner or later the other also disappears.

The international cash book of a country is known as the balance of international payments. In it all the transactions with other countries appear, and credits equal debits. It is not unlike the balance sheet which an individual uses when he studies his income and outgo.

Nor are the essential principles underlying the international balance of payments different from those that apply to the transactions of an individual. When a farmer buys a plow he pays for it in one of three ways; with cash, with credit, or with commodities that he produces. But for him to use either cash or credit to pay for all purchases over a period of years is impossible. A farmer's cash and credit would soon be exhausted. In the end he must pay for the goods he buys with the goods he sells. His incoming payments must balance his outgoing. And it follows that the less he sells the less he can buy. This is all too drastically evident today with 10 cent corn and $2.50 hogs.

Likened to International Payments

In these particulars the international payments of a country are like those of an individual. The items that appear in the balance sheet of a nation are, of course, more complex and intricate and yet the important features are the same. For instance, when Germans buy cotton, wheat and lard they can pay with gold—since no other money is acceptable among nations—with funds borrowed from abroad, or with goods. But they too, in the end, must exchange goods for goods or stop buying.

The total available monetary gold in the world is only about 12 billion dollars and two-fifths of this has now been for years in the United States. The total gold holdings of all of the countries outside of the United States would have paid for a

little over one-half of the gross payments due our citizens for goods and services sold abroad in the one year, 1928. Obviously international credit also is limited. The only way, then, in which exporters can receive pay for their wares over a period of years is through imports. It is important to keep in mind that in the last analysis international trade is essentially barter.

Our Trade Balances

The following section shows what is meant by the phrase "balance of payments." Since it is best illustrated by example, let us consider the relevant figures for this country for 1928. The year 1928 is taken because the payments are fairly typical of the post-war period.

The balances compiled by Ray Hall of the Department of Commerce are given in tables XXXVI and XXXVII. Although these estimates are admittedly subject to considerable error, they are the best available. All items in columns 3 and 4 in the following table are net—incoming payments in every case have been canceled against corresponding outgoing payments. Observe that therefore each item appears but once, either as a credit or as a debit.

Table XXXVI summarizes the financial transactions of all international activity in which Americans had part during 1928. The incoming and outgoing payments are the pans of the balance. The weights that tip it in favor of this country are called credit items and those that act in the opposite direction are debits. The total value of all the weights in the two pans measures the "international turnover" between the United States and all other countries.

The incoming and outgoing payments appearing in table XXXVI give the gigantic total of 20,994 million dollars. The tremendous role that international transactions have in the business activity of the United States is self-evident. By 1931, however, our international turnover had declined to 13,000 million dollars, and it is estimated that in 1932 it again was sharply lower.

Trade

The largest and most important items on the international cash books are exports and imports of commodities. Our prin-

TABLE XXXVI. ESTIMATED BALANCE OF INTERNATIONAL PAYMENTS OF THE UNITED STATES FOR CALENDAR YEAR 1928, GIVING ALL INCOMING PAYMENTS TO THE UNITED STATES AND ALL OUTGOING PAYMENTS FROM THE UNITED STATES TO OTHER COUNTRIES

(Millions of Dollars)

		Balance	
(1) Classes of International Transactions	(2) Total value	(3) Net incoming payments	(4) Net outgoing payments
Incoming Payments to the United States (Credits)			
Exports (all commodities)	5,333	865	
Capital imports (foreign investments here)	2,795		
Earnings on investments abroad	896	537	
Tourist expenditures of foreigners here	163		
War debt receipts (net)	207	207	
Miscellaneous invisible items	460		
Gold	629	272	
Error	14	14	
Total	10,497	1,895	
Outgoing Payments from the United States (Debits			
Imports (all commodities)	4,468		
Capital exports (new investments abroad, etc.)	3,513		718
Earning to foreigners on investments in America	359		
Tourist expenditures of Americans abroad	824		661
Immigrant remittances (net)	218		218
Miscellaneous invisible items	532		72
Short term credit to foreigners	226		226
Gold	357		
Total	10,497		1,895
Grand total (all items)	20,994		

Source: Based on the excellent work done by Ray Hall, formerly assistant chief of the Finance and Investment Division, United States Department of Commerce, as reported in Balance of International Payments of the United States in 1931. Trade Information Bulletin No. 803. pp. 76-77.

cipal exports include lard, cotton and tobacco; wheat, rye and barley; apples and oranges; salmon and sardines; automobile tires, cigarettes and hosiery; gasoline and kerosene; tin plates, copper, lumber, rosin and turpentine; locomotives, sewing machines, cash registers, typewriters and printing machinery; automobiles, motorcycles and pianos. These give rise to incoming payments.

The important commodities in our import list are raw silk, rubber, paper and wood pulp; cane sugar and coffee; wool, some chemicals, furs and hides; fertilizers, oilseeds and vegetable oils; burlap, diamonds, tin and tea. These represent outgoing payments.

Since the value of the goods that we sold to foreigners exceeded those that we bought from them, the "balance of trade" gave rise to net incoming payments. The difference, $865,000,000, is

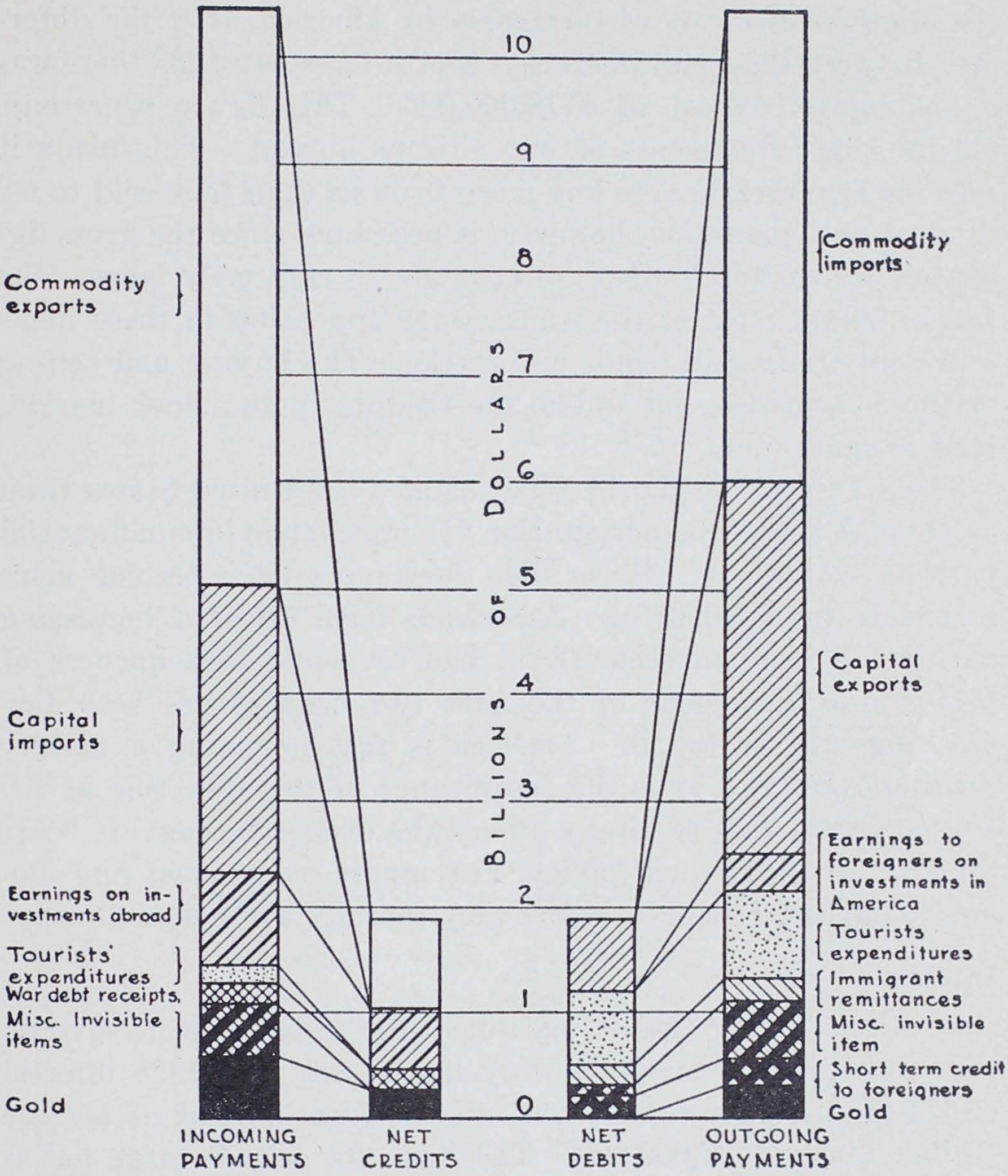

Fig. 18. Balance of international payments of the United States for 1928. (Based on table XXXVI.

therefore credited to the United States. How did foreign buyers in the aggregate pay us this trade balance? To answer this question it is necessary to consider the other items on the balance sheet. These will be taken up in the following order: Loans, interest, tourits expenditures, immigrant remittances, miscellaneous invisible items, and all others.

Loans

Two items in table XXXVI give capital movements. One of these covers investment transactions of Americans abroad and

the other investments of foreigners in America. It is the difference between these two items that is of interest. In 1928 there was a net capital export of $718,000,000. This figure represents chiefly new investments of our citizens abroad. This made it possible for foreigners to buy more from us than they sold to us. A word of explanation, however, is necessary since the gross figures of which this is the difference are so extremely large. The reason is that most of the transactions appearing in these items represent trading in bonds and stocks. The buying and selling of these securities, not unlike the trading in the stock market, tend to cancel out.

The events of the World War changed the United States from a debtor to a creditor nation. Nor did the change in our financial position stop there. Since then foreigners have become more and more indebted to us. Americans have invested increasing amounts in foreign securities. The economic consequences of this capital movement of the past two decades are both far-reaching and profound. America is fast becoming a mature creditor country. It is the significance of this new role of the United States that so vitally affects the export farmer. It bears directly upon our tariff policy. Foreigners today must find dollars to pay interest to us before they can buy our commodities.

Interest

The item giving the net earnings that Americans receive on their foreign investments is very important. For 1928 interest and dividend payments to our citizens from abroad netted the United States $537,000,000. The item not only is large but is increasing in size. As interest and sinking fund payments are made each year upon old and new loans to foreigners this item increases. It is these payments that are of paramount significance to the American farmer.

Our earnings on investments abroad definitely compete with our exports of lard, wheat and cotton for dollar exchange. When dollars are virtually unobtainable abroad, as they are at present, interest and principal payments come first and the produce of the export farmer goes begging for a market.

Tourists and Immigrants

So great was the annual migration of Americans in 1928 that it is estimated that $824,000,000 was spent by them abroad. This

TABLE XXXVII. BALANCE OF INTERNATIONAL PAYMENTS OF THE UNITED STATES FOR CALENDAR YEARS 1922-1931

(Millions of Dollars)

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932 (b)
Commodities (a)											
Exports	4,121	4,368	4,834	5,177	5,044	5,091	5,333	5,447	4,095	2,424	1,612
Imports	3,419	4,162	3,952	4,544	4,766	4,508	4,468	4,799	3,294	2,090	1,323
Incoming Payments (net credits)											
Commodity trade balance	702	206	882	633	278	583	865	648	801	334	289
Return on foreign investments	411	414	443	460	472	519	537	565	616	754 (c)	610 (c)
Return on war debt	158	259	183	186	195	206	207	207	241	43	99
All other items (d)	434	91	151	0	413	0	0	62	0	0	0
Gold (exports)	0	0	0	0	0	154	272	0	0	176	0
	1,705	970	1,659	1,381	1,358	1,462	1,881	1,482	1,658	1,377	998
Outgoing Payments (net debits)											
Capital exports	753	0	733	560	540	695	718	319	295	0	0
Tourist expenditures	370	355	440	487	489	548	661	685	654	456	375
Immigrant remittances	247	218	219	227	210	198	218	223	166	163	132
Miscellaneous invisible items	101	102	51	58	47	0	72	135	125	49	109
All other items (d)	0	0	0	49	0	21	212	0	142	709	371
Gold (imports)	234	295	216	0	72	0	0	120	276	0	11
	1,705	970	1,659	1,381	1,358	1,462	1,881	1,482	1,658	1,377	998

(a) Adjusted for difference in year end lag.
(b) Preliminary.
(c) Includes for 1931 $218,000,000 and for 1932 $217,000,000 of net inflow of funds into the United States as a result of international security transactions.
(d) Largely changes in the inflow or outflow of short term credit.
Source: Based on the studies of Ray Hall, formerly assistant chief of the Finance and Investment Division, Department of Commerce, and of Amos E. Taylor, present assistant chief, as reported in The Balance of International Payments of the United States in 1932, Trade Information Bulletin No. 814, and in earlier publications.

includes the money spent by our citizens living abroad who derive their income from this country. After subtracting the expenditures of foreigners in America there remained $661,000,000. This item is an invisible import; it is principally a payment for services rather than for goods.

Immigrant remittance is also an outgoing payment made up largely of gifts and of debt payments from recently arrived immigrants to relatives and friends in the old country. Time, however, slowly loosens the tie that obligates the immigrant to his kin who remained behind; each year sees a smaller number of dollars sent back to them.

Miscellaneous Invisible Trade

Under the heading of miscellaneous invisible items are included numerous invisible exports and imports. Freight payments and receipts, ocean-borne passenger traffic, United States government receipts and disbursements abroad, foreign representations here, missionary and charitable contributions, motion picture royalties, Canadian electric power used in the United States, foreign subscriptions to American publications, patents, copyrights, royalties, legal fees, advertising, cablegrams, radiograms and international telephone calls—all of these contribute to this catch-all item. In the aggregate the services in this group tend to cancel each other. The net figure that remains is small and is in favor of foreigners, therefore, a debit.

Other Items

The returns on war debts are about as large as immigirant remittances. The annual payments are scheduled over the next 60 years. They gradually increase until 1984 when $423,000,000 is scheduled. This item, although comparativeyl small, also competes for the dollars that foreigners are able to get, hence it definitely tends to reduce our trade balance.

Of all commodities, gold has a special privilege in foreign trade. It is exported and imported without any tariff restriction. For instance, when the pressure of international payments is in our favor it is quickly and readily imported to balance the accounts. It usually is a small item in the total international turnover of a country. Yet from the beginning of the World War

until about 1925, there was an extraordinary movement of gold into the United States. It was the one way, outside of borrowing, that foreigners had of paying for their purchases. This movement, of necessity, had to stop because the amount of gold in the world is after all limited.

Short term credits to foreigners are debts of foreigners to American banks. They are in the main temporary credit accounts—bills that have not been paid.

The post-war international accounts of Uncle Sam show three important classes of credit transactions, namely, (1) exports in excess of imports,* (2) earnings on investments abroad, and (3) returns on war debts. The cash book was balanced by three large items on the debt side; they were, (1) loans to foreigners, (2) tourist expenditures, and (3) immigrant remittances.

Observe that American tourists and our immigrants transferred about enough dollars out of the United States to cover interest due us on investments abroad and the scheduled payments on the war debt. From 1922 to 1930 these four items practically canceled each other.

An important characteristic of the interest and principal payments due American citizens is the fact that they are fixed by contract. Foreign individuals, corporations, municipalities and governments using American capital have contracted to pay each year a specified number of dollars to their bondholders. Except as there is default and repudiation the interest and amortization on the debts that foreigners owe us are fixed for years into the future regardless of how hard or how easy it is to obtain American dollars abroad. Observe also that the size of the net payments covering earnings on our investments abroad is gradually increasing. Nor is its trend likely to change in the immediate future.

Debtor-Creditor Position of the United States

In 1914 investments of foreigners in United States securities stood at about 3,000 million dollars greater than similar investments of Americans in foreign securities. We know that

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*In most of the literature when exports exceed imports a "favorable balance of trade" is said to exist. This is often misleading to the lay reader, who is likely to interpret the word "favorable" as implying a desirable state of affairs whereas the term has no such implication.

many of our early railroads were largely built by European capital. This net debt of the United States gave Europe an annual income of around 200 million dollars. The payment of this interest produced dollars abroad, hence a good market for our exports. In spite of restrictions upon imports into this country we enjoyed before the war a profitable foreign market.

But all this has changed. By 1931 we held long term investments abroad including the war debt and German obligations to the United States Government totaling 23,337 million dollars. On the other hand, foreign investments in the United States were estimated at 2,422 million dollars. Insead of being in a debtor position to the extent of 3,000 million dollars, the United States is today a creditor by around 20,915 million dollars or a net change of nearly 24,000 million dollars.

The Great War along with subsequent events changed the United States from a position of the world's greatest debtor to that of one of her two greatest creditors.

It was pointed out above that at the outbreak of hostility the net income from long term investments was around 200 million dollars in favor of foreigners holding American securities. In contrast, in 1930, Americans received a net balance of 616 million dollars on long term investments abroad.

The complete reversal of our country from a debtor to a creditor nation; the payment of more than a half billion dollars net, principally interest, annually to us as creditors; a payment that is largely fixed by contract and one that is increasing each year in size—these are facts of supreme significance to the American exporters, foremost among whom are the hog, wheat and cotton farmers.

It is clearly evident that for the next 10 years and longer, more and more of the limited supply of dollars available to the outside world will be needed to pay back interest and principal of capital now invested abroad. With property rights as they are, the obligations of the creditor come first. How, then, are foreign buyers to get dollars with which to purchase our farm produce, that surplus which in the past we sold to them at a satisfactory price? Obviously our invisible exports—tourist expenditures, immigrant remittances and other invisible items—cannot be expanded read-

ily to make available to foreigners sufficient dollar exchange with which to pay us a large trade balance.

Overnight, as it were, the events of the World War changed this country from a debtor to a creditor nation. But our policies are as of old. We still expect to export without permitting equivalent imports.

How Uncle Sam Has Been Trading

Since the war Europe borrowed and we exported. They sent us long term bonds and we sent them bread and meat. Thus until recently we maintained our export trade in spite of the bald fact that foreigners were not able to earn enough dollars to pay for the commodities they bought from us. Up to 1930 net capital investments abroad practically covered our trade balance.

TABLE XXXVIII. CHANGE IN THE LONG-TERM DEBTOR-CREDITOR POSITION OF THE UNITED STATES FROM 1914 TO 1931

(Millions of Dollars)

	American investments abroad	Foreign investments in the United States	Net creditor position of the United States
1914	2,350(a)	5,350(b)	—3,000
1931	23,337(c)	2,422(d)	20,915
Net change in creditor position of the United States..	.....	.....	23,915

Source: a. Mid-point of estimate made by Ray Hall which appears in America Weighs Her Gold, by James Harvey Rogers, 1931. p. 46.
b. Adjusted to estimate of National Industrial Conference Board, The International Financial Position of the United States, 1929. p. 3.
c. Includes 3 items: (1) American investments in foreign countries at the end of 1931 ($15,635,000,000) given in The Balance of International Payments of the United States in 1931, Dept. of Commerce, Trade Inf. Bul. No. 803. Table 15, p. 44; (2) Value of War Debts, at 4¼%, June 30, 1930 ($7,390,000,000). Rogers, op. cit. Table II, p. 47; and (3) Value of German Obligations to the United States Government, at 4¼%, March 30, 1931 ($312,000,000). Rogers, op. cit. Table II, p. 47.
d. Includes 2 items: (1) American investments held by foreigners. The Balance of International Payments of the United States in 1931. $2,250,000,000) op. cit., p. 48; and (2) Obligations to foreigners from awards by Alien Property Custodian, Dec. 31, 1930, and War Claims Arbiter June 30, 1931. ($172,000,000). Rogers, op. cit. Table II, p. 47.

But this merely postpones the day of reckoning. Like rolling a snowball, next year's bill has always been greater by accumulated interest and amortization of the previous borrowings. But now loans to foreign nations have ceased and exports have declined to a third of the 1925-1929 level. Observe the figures in table XXXIX.

Let us translate this state of affairs into private transactions. Imagine a shoemaker heavily in debt who for over a decade is not permitted to sell his wares, but who is forced to pay his living expenses, the interest on his mortgage, and in addition certain scheduled payments on a debt that he inherited, in the following ways: (1) by borrowing more and more money from his creditors, (2) by turning his shop into a summer resort and (3) by using the few dollars his relatives in the country see fit to send him. What manner of business is this! Certainly it cannot go on indefinitely. Nor has it. Table XXXIX shows what drastic changes had occurred in our international balance of payments by 1932.

The depression has stopped the outward flow of new American capital; in fact, the capital movement has for the time being reversed itself. In 1932 some foreigners were buying back some of their bonds while others were liquidated, and as a result there was a net capital flow of $217,000,000 into the United States.

Exports and imports dropped precipitously. In 1932 they

TABLE XXXIX. COMPARISON OF THE BALANCE OF INTERNATIONAL PAYMENTS OF THE UNITED STATES FOR 1931 WITH THE 1925-1929 AVERAGE

(Millions of Dollars)

	1925-1929 Average	1931	1932 (b)
Commodities (a)			
Exports	5,218	2,424	1,612
Imports	4,617	2,090	1,323
Incoming Payments (net credits)			
Commodity trade balance	601	334	289
Return on foreign investments	511	754 (c)	610 (c)
Return on war debts	200	113	99
All other credits	200	176	0
Outgoing Payments (net debits)			
Capital exports	566	0	0
Tourist expenditures	574	456	375
Immigrant remittances	215	163	132
All other debits	157	758 (d)	491 (d)

(a) Adjusted for difference in year end lag.
(b) Preliminary.
(c) Includes for 1931 $218,000,000 and for 1932 $217,000,000 of net inflow of funds into the United States during 1931 as result of international security transactions.
(d) Of these figures, $709,000,000 for 1931 and $371,000,000 for 1932 represent a net outflow of short term capital from the United States. It reflects especially the sharp drop in deposits carried in the American market by foreigners.

Source: Based on the studies of Ray Hall, formerly assistant chief of the Finance and Investment Division, Department of Commerce, and of Amos E. Taylor, present assistant chief, as reported in The Balance of International Payments of the United States in 1931. Trade Information Bulletin No. 814 and earlier studies.

were less than one-third of the 1925-1929 average. Fewer tourists went abroad; their expenditures were $200,000,000 less in 1932 than for the 5-year average. The remittances made by immigrants also declined sharply.

The important changes which the depression has brought to our balance of international payments are: (1) a cessation of new American investments abroad, (2) a drastic decline in our trade balance, (3) increased earnings and collections on investments made to foreigners and (4) a sharp increase in short time credit extended to foreigners. The other items all declined. The returns on the war debt reflect the effect of the Hoover moratorium dclared in June, 1931.

The international accounts do balance. But tourist expenditures, immigrant remittances and miscellaneous invisible imports are not enough to cover the returns due the United States on foreign investments and war debts and at the same time leave foreigners with sufficient balance of dollars with which to buy the usual quantity of American commodities. For some years this deficit has been covered by loans to foreigners and by the importation of gold. Neither of these offers promise for the immediate future.

If foreigners are to buy American produce they must find it possible to sell their specialties in this country. If they cannot sell in our market they may borrow dollars with which to buy from us. Because they were able to borrow, foreign trade did appear to go on satisfactorily from 1924 to 1929. Borrowing, however, has stopped. How now are foreign countries to buy lard, wheat and cotton? They must first pay annually, in dollars, interest and dividends due Americans. This, too, can in the long run be done only in imports, visible and invisible. In substance, they must sell to us before they are able to buy from us. Again, we are back to the second principle underlying all international trade, namely, *imports are the demand for our exports because imports pay for exports.* The two go hand in hand.

To see how tariffs work one has to stand above individual schedules and look at the picture as a whole. It is not easy for a farmer or businessman to do this. For one reason, he is likely to consider only those tariffs on the things he produces thus missing their national and international effects. Then, too, international

trade, including the tariff problem, is always very complex. The interrelations of one group of farmers to another, of agriculture to industry, and of the United States to the rest of the world are intricate questions; yet, they all have to be taken into account.

Economic Consequences

The general picture of foreign trade has been stressed in this chapter. We have looked into the international records and accounts of Uncle Sam and we have analyzed the yearly statements of incoming and outgoing payments. The most important single fact that has come to our attention is our complete change from a debtor to a creditor country. Moreover, we found that our creditor position has expanded amazingly in the last decade.

The economic consequences of this change in the financial position of the United States are not generally understood. It is a new experience for America. As a nation we are still debtor-minded. We think and act like debtors; our policies are those that suited the pre-war period; we do not know what it means to be creditors. It has taken a crisis to awaken us.

The export farmer is, of course, vitally interested. His very existence is at stake. But he is not alone. The interdependence between hog and dairy farmers and between farm and city people is fairly evident today. They are all tied together. When one falls the others follow or absorb the shock and rescue the victim.

When foreign markets for cotton, wheat, lard and tobacco disappear it is only a matter of time until the prices of butter, beef, mutton and eggs are dragged down. American farming is still dominated by the export group. They set the tempo of our agricultural well-being. Nor is the city outside the pale of its influence. Witness the consequences of the lack of purchasing power among farm people; it has seriously affected the rest of our business community. The fact that farmers are unable to buy is being keenly felt in our industrial centers. Factories are forced to close and the ranks of the unemployed are increasing because of the inability of farmers to buy their products. *The loss of the foreign markets has destroyed the fundamental balance of our national economic life.*

The present crisis in international trade has brought widespread disaster to the export farmer. Figure 19 shows how much harder he is hit than the farmer not directly dependent upon foreign outlets. The export group is today receiving prices only about one-half as high as the non-export group, who, too, are definitely depressed. The weighted average farm price in December of the commodities on an export basis was 43 percent of pre-war; whereas, the non-export group stood at 80 percent of the 1910-1914 price level. This looks like an excellent argument for getting all of our agriculture on a domestic basis. Certainly, the home market is more certain and dependable in periods such as we are now in.

But the American farmers, especially those of the Mississippi Valley, are inescapably dependent upon foreign buying. The home market, in spite of the phenomenal growth of our cities, cannot absorb anywhere near all of the food and raw materials of our farms. Moreover, there is not even a remote probability that any possible increase in our industrial population will pro-

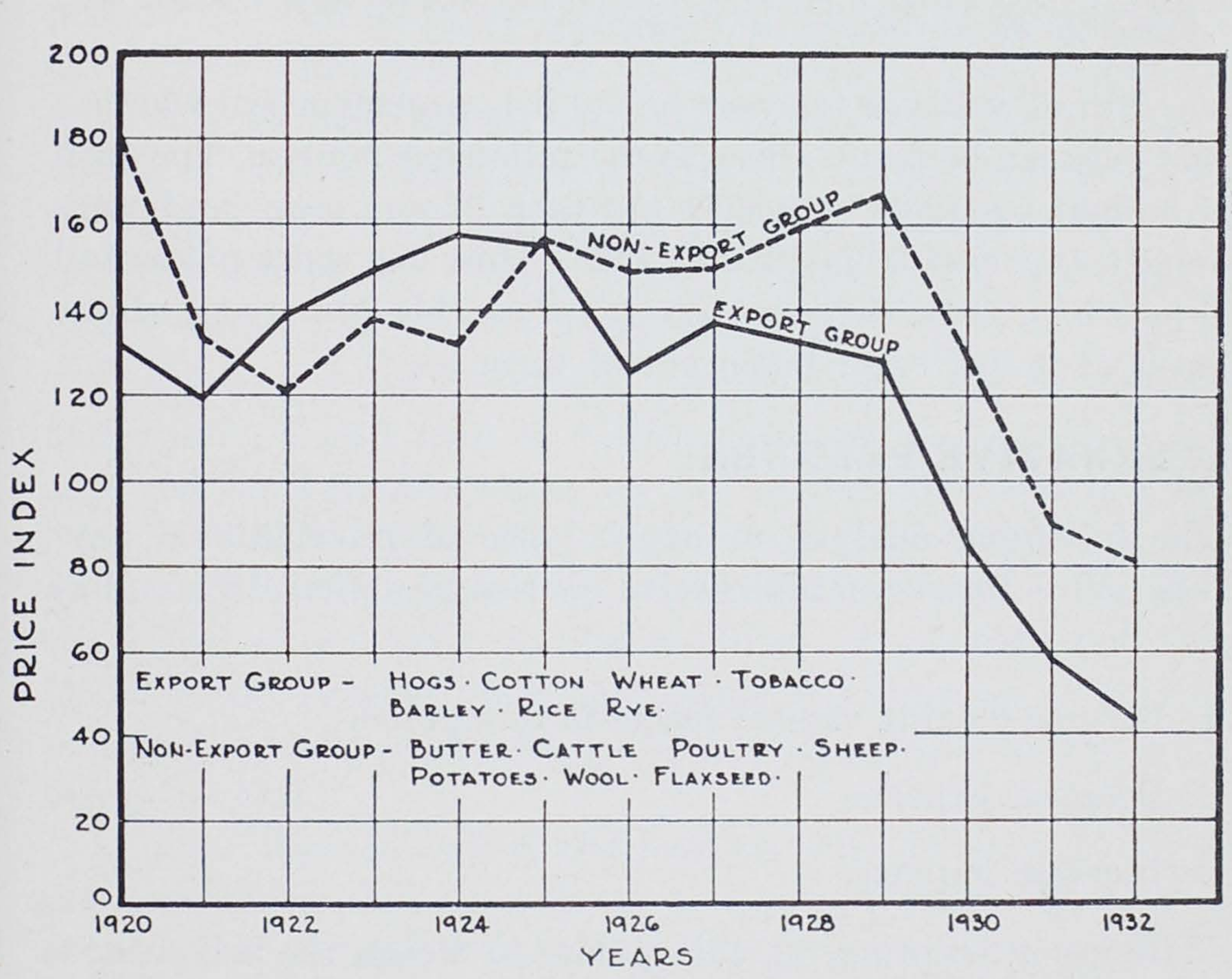

Fig. 19. A comparison of the general trend of farm prices of the export group and non-export group of agricultural commodities (index is a weighted average).

vide during the next decade or two a home market sufficiently large. Facts force us to accept the conclusion, whether we wish it or not, that farmers must continue to sell abroad or face wholesale liquidation. Temporarily, production may, of course, be checked and even reduced to something approaching a domestic

TABLE XL. CROP LAND REQUIRED TO PRODUCE AGRICULTURAL EXPORTS AND AGRICULTURAL IMPORTS THAT COULD BE PRODUCED IN THE UNITED STATES

Crop Land Required to Produce:	Acres	Percent of total
Agricultural exports (a)	65,000,000	18.6
Agricultural imports that could be produced in the United States (b)	15,000,000	4.3
Total crop land	350,000,000	100.

(a) This is the area used for the production of crop and animal products exported as estimated for 1922-1928 (55,000,000 acres) plus the area required to produce feed for the work stock used in producing our exported products.
(b) Obviously it is not advantaegous to undertake the commercial production of all the agricultural commodities imported, for instance, such tropical products as bananas, pineapples, coffee and rubber. This figure is the area of land that would be required to produce those commodities that are capable of being produced in this country at costs that are not excessive.
Source: L. C. Gray and O. E. Baker. Land Utilization and the Farm Problem. Misc. Publication No. 97, Department of Agriculture, 1930.

basis. But as a five or ten-year policy it is problematical whether or not this can be done. Observe the following figures. The crop and animal products of nearly one-fifth of our crop land were annually exported from 1922 to 1928. How low must prices fall and how long must they stay down before this 20 percent of our farm land is shifted or taken out of farm use?

ALTERNATIVE POLICIES

The foregoing analysis of our balance of international payments points to several alternative courses of action. In simplest terms they are:

1. Resume loaning capital funds to foreigners.
2. Decrease exports.
3. Increase imports.

Without attempting, at this point, to weigh the advantages and disadvantages of a tariff policy, these three possibilities, or a combination thereof, are open to us. At present, knowingly

or otherwise, the United States is carrying out a policy the consequences of which can be none other than to decrease exports.

Throughout this study no mention has been made of the adverse effects of foreign tariffs, import quotas, milling restrictions, import monopolies and exchange control upon our foreign trade. All of these are bearing heavily on the export farmer, particularly since most of the trade restrictions enacted in the last three years have been on agricultural commodities. The removal of these severe restrictions would certainly ease the pressure against our wheat and lard and other farm products. But the fact remains, even though every foreign country were to remove all of its trade barriers, our export trade would still be doomed, unless foreign countries can sell in our market. Cotton, for example, has no tariffs against it abroad, and yet it, too, finds the foreign market without dollars with which to buy cotton.

For the next few years there is little likelihood that much money will be loaned to foreigners. The revival of our commodity exports by resuming our policy of loaning money is not very promising. Too many of our citizens, who hold foreign bonds, have taken unexpected losses. This is going to make it hard for some time to float foreign securities in America. In fact, as was indicated earlier, the capital movement, for the time being, has reversed itself. Some American investors are trying to return their capital to the United States. Instead of promoting our export trade, this action further stifles it.

The scaling down of foreign loans now in force, both private and public, would tend to relieve the pressure on dollars now required for incoming payments for interest and sinking funds. Such a creditor-debtor adjustment would help commodity sales abroad. It is not amiss to point out that the war debt is but a small part of our total creditor holdings. The outlook for relief to the export farmers from more loans to foreigners and from a scaling down of present investments of Americans abroad is certainly doubtful.

Another alternative is to decrease exports. This means adjusting production more nearly to a domestic basis. It involves shrinking the export industries to the point where imports, visible and invisible, will pay for our earnings on foreign investments, return on the war debt and, if a balance remains, for ex-

ports. Presumably, the shrinking process is automatic. Because foreign buyers are unable to get dollars to buy our commodities, the price of these commodities therefore falls to a point so low that a sufficient number of producers are forced out of these fields. Thus a new equilibrium would be created. It is needless to say that an adjustment of this kind in agriculture is extremely slow and socially very painful. Dislocations in agriculture require years to mend themselves.

The third alternative involves increasing imports. The important factor in such a policy would be the scaling down of our tariff wall. This does not necessarily mean free trade or an abandonment of protection. Such a policy calls for "enough of an increase in imports of diversified manufacturers to make it unnecessary for us to base our export trade on foreign loans." Lowering the tariff wall would force some tariff protected industries to shift to those business activities that can compete without prohibitive tariffs.

The choice is unmistakably between the second and third of these alternatives. As a nation we must either decrease our exports or increase our imports. One represents the demand for the other. The two must balance.

Thus far it has not been our expressed purpose to show which of these two alternatives is the better national policy. Our task has been to consider the consequences of our past policy. Their effects upon the export farmer have been pointed out. We have not, however, appraised the advantages of tariffs from a national viewpoint. That job remains.

Tariffs are intended to check imports. It is the protective aspect and not the revenue-raising feature of tariffs that is commonly stressed in Congress. What reasons are there for a nation to check, in fact, often prohibit, imports? There are many arguments advanced for tariffs. The more important of these will be examined in the following chapter.

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CHAPTER TEN—MARCH, 1933

Shrink Agriculture or Shift Tariff Protected Industries

By Theodore W. Schultz

It was pointed out in the previous chapter that the United States has, due to the circumstances of the World War and the post-war period, graduated from the position of the world's greatest debtor to a position as one of the two greatest creditor nations. It is an inescapable fact in international trade that a mature* creditor nation cannot sell as much to other countries as it is obliged to take from them.

Less Exports or More Imports

There are essentially two ways by which this adjustment in our foreign trade can be made. We may either decrease our exports or increase imports. Naturally, a combination of the two is also possible.

For a long time we have looked upon ourselves as an exporting country, and rightly so. Since 1874 American trade has been marked by an export trade balance. The value of exports exceeded imports; we sold more goods to foreigners than we took from them.

Up until the World War our trade balance reflected our debtor position. We were a mature debtor country. We had borrowed more capital from abroad than any other country. In order to make interest and sinking fund payments to foreign citizens it was necessary for us to export more than we imported. It is estimated that at the time of the outbreak of the World War Americans were paying about $200,000,000 a year to Europeans for the use of capital. In contrast, the principal creditor countries, such as the United Kingdom, pre-war Germany and France, imported more than they exported. This, too, was only natural. These trade balances merely reflected the financial positions of the respective countries.

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*A mature creditor nation is said to exist when new loans to foreigners do not cover interest and amortization due it on previous investments abroad, and a mature debtor nation exists when funds borrowed currently from other countries are not as large as interest and sinking fund payments due other countries on all previous foreign loans.

A mature debtor country must export more than it imports to balance its international payments. Germany, India, Argentina and Mexico are in this position at the present time. Similarly, a mature creditor country is obliged to import more than it exports. The United Kingdom, France and the Netherlands are examples of such countries.

Relation of Prosperity to Trade Balances

It is a common belief that a country gains from international trade only when it sells more than it buys. There is no adequate foundation for this belief. In fact, it is contrary to one of the basic principles underlying all trade among countries. In the last analysis, imports pay for exports. **They are a nation's receipts for the commodities that it sells to foreigners. To refuse to accept imports is to refuse payments for goods sold and awaiting to be sold.**

The trade balance in itself is therefore not a key to the prosperity of a country. For instance, the prosperity of the United States during the years preceding the war is no more to be attributed to the excess of exports that characterized our trade balance, than is the British prosperity of the same period to be accounted for on the grounds of an excess of imports. The economic well-being of a nation depends upon other considerations, principally on the effectiveness of its workers, the state of the arts, and the abundance of natural resources.

From a national viewpoint large exports and small imports are in themselves neither desirable nor undesirable. Foreign trade is closely related to the international flow and ebb of capital. A trade balance reflects the debtor or creditor position of a country and not the prosperity of the people. Although the time has come when the United States must change from an exporting to an importing country, this transition should occasion no alarm.

Two alternatives have been stressed, namely: (1) shrinking the export industries, including mid-western agriculture, to more nearly a domestic basis, thus cutting down exports, or (2) scaling down our tariff walls so as to permit enough imports, which would probably be chiefly diversified manufactures, to make it possible for farmers and manufacturers to sell a part of their produce in foreign markets.

TABLE XLI. BALANCES OF INTERNATIONAL PAYMENTS OF THE UNITED STATES SHOWING NET INCOMING PAYMENTS AND NET OUTGOING PAYMENTS OF THIS COUNTRY FOR 1922-1930 AND FOR 1931 AND THE PROSPECTIVE LONG-TREND OUTLOOK OF EACH CLASS OF TRANSACTIONS

(millions of dollars)

Class of international transactions	1922-1930 yearly average	1931	1932[b]	Prospective long-trend outlook
Commodities[a]:				
Export	4,834	2,424	1,612	Decrease, relative to imports.
Import	4,212	2,090	1,323	Increase, relative to exports.
Net incoming payments to the United States:				
1. Commodity trade balance	622	334	289	A complete reversal is probable, imports exceeding exports.
2. Earnings on foreign investments	493	754	610[c]	Likely to increase in size and in importance. Considerable default at present.
3. Returns on war debt	205	113[d]	99[d]	Further scaling down in prospect.
4. All other items	4	0	0	Cancels out against item (4) below. No significant change probable.
5. Gold (exports)	0	176	0	Flows out or in upon the slightest pressure. Long-run direction of flow undeterminable.
Net outgoing payments from the United States:				
1. Capital exports	513	0	0	Few loans likely to be made to foreigners for some years. After international stability is reached, they are likely again to become important.
2. Tourist expenditures	521	456	375	Subject to many unforecastable factors. This item will probably remain large.
3. Immigrant remittances	214	163	132	Definitely declining and will gradually disappear.
4. All other items	0	758[e]	480[e]	The 1931 figure represents short term credit changes, a danger signal of pending uncertainty. Normally likely to cancel out against item (4) in net incoming payments.
5. Gold (imports)	76	0	11	See (5) above.

[a]Adjusted for difference in year end lag.

[b]Preliminary.

[c]Includes $218,000,000 for 1931 and $217,000,000 for 1932 of net inflow of funds into the United States as a result of international securities transactions.

[d]1931 and 1932 reflect the Hoover Moratorium and also the default and postponement of some countries in 1932.

[e]Of these figures $709,000,000 for 1931 and $371,000,000 for 1932 represent a net outflow of short term capital from the United States. It reflects especially the sharp drop in deposits carried in the American market by foreigners.

Source: Based on the studies of Ray Hall, formerly assistant chief of the Finance and Investment Division, Department of Commerce, and of Amos E. Taylor, present assistant chief, as reported in "Balance of International Payments of the United States in 1931," Trade Information Bulletin No. 803.

Whether it is better national policy to shrink the export group or allow more merchandise to be imported depends principally upon the advantages or disadvantages of tariff protection. Before examining the arguments commonly advanced for tariffs, however, it will be necessary to consider how foreign trade adjusts itself to tariff barriers when, for instance, other countries are obligated to make large dollar-payments to the United States.

ADJUSTMENTS NOW TAKING PLACE IN OUR BALANCE OF PAYMENTS

Even though the United States does not change its tariff policy, are there not some well defined long time adjustments in process that will eventually correct the acute scarcity of American dollars abroad? After all, are not the painful ruptures in our foreign trade healing themselves? Let us consider some of the forces that are at work which if left alone should in time relieve the pressure on incoming payments—trends that give promise to correct the vicious state of affairs now existing in our balance of payments.

It is easier to see how these adjustments take place when one studies the case of the foreign country meeting the pressure of outward payments to the United States. Keep in mind that we are protected by a high tariff wall.

Briefly, many foreign countries each year must make immense payments to us. These payments must be made in dollars. Up until 1930, in most of these countries no apparent scarcity of dollars developed. There had been a rapid increase in foreign loans obtained from us which made dollar exchange plentiful. When foreign loans stopped, as they did during 1930, pressure soon developed.

Premium on Gold

Foreign countries must continue to make large payments to the United States. To obtain American dollars, now that credit is no longer available, they must sell their goods to us. At present we stand ready to receive gold and certain raw materials without the penalty of a tariff. Most manufactured articles are allowed to enter only after paying a heavy customs duty.

Gold, moreover, has special privileges. Not only is it permitted free entrance, but it is acceptable in unlimited amounts and at a fixed price. All other duty-free articles if imported in excess of usual requirements are acceptable only at a much reduced price. This places gold in a favored position. As a result, in all countries making heavy payments to the United States there arises a premium on gold.

Under normal conditions premiums on gold of this nature are the very forces that correct the pressures that may develop in the international balance of payments. Since the monetary structures of these countries are based on gold a premium on it tends to press internal prices down. Their price levels in terms of gold would therefore separate downward from ours.

Since the outflow of gold from a country reduces the price level and the inflow raises it, the movement of gold to the United States to discharge foreign obligations should set forces into operation that would relieve the scarcity of dollars abroad. In barest outlines the process is as follows. Gold imports would inflate our price structure. The loss of gold by the outside world would deflate their price structures. Thus our prices would separate from those of other countries. This would act as a check on our exports and as a stimulant to imports. Foreign goods would come in over the tariff wall in large enough amounts to reestablish a balance between outgoing and incoming payments.

But why did this corrective not take place during the last decade? Certainly, all of the countries that made heavy payments to us have experienced a scarcity of gold. Furthermore, gold has flowed in extraordinary amounts into the United States.*

Sterilized Gold

In the first place much of the gold that was sent to us was absorbed by the Federal Reserve Banks. The system acted

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*The United States, which in 1913 held only 23 percent of the gold in the world, in 1931 had 43 percent of the total supply. England and Germany had 10 percent and 11 percent, respectively, of the world's gold in 1913; by 1931 their share had fallen to slightly less than 7 and 3 percent. During this period France had increased her holdings from 15 to 19 percent, while Russia's share had dropped from 11 to 3 percent. Two countries in 1931 had come to possess over 60 percent of total gold stocks. On the other hand, two great trading and financial countries—England and Germany—were forced to operate on less than half of their former gold reserves. Rogers, James Harvey. "America Weighs Her Gold." p. 211. Yale University Press. 1931.

partly as a sponge soaking up the incoming metal. Consequently it did not lead to a proportional enlargement of the credit structure. Hence prices did not rise to the full extent that available gold stocks would have allowed.† The policy of the Federal Reserve Banks in not letting domestic prices inflate more than they did prior to 1929 may have been commendable. But whereas a stable price level was a good national objective, it threw an undue strain upon the price structure of the rest of the world. By attempting to keep domestic prices in hand, that is, avoiding undue inflation prior to 1929, the Federal Reserve Banks counteracted the effects of much of the incoming gold. Thus they lessened the curative powers of the incoming gold in reestablishing a normal balance in our international payments.

Tariff Warfare

In the second place, we followed a policy of trade restriction. Whenever a stream of goods showed signs of coming in over our tariff wall we quickly raised additional barriers. The Tariff Act of 1922 practically closed the American market to foreign goods, except for certain raw materials. The Tariff Act of 1930 followed with its all but prohibitive duties. To the extent that the loss of gold abroad lowered their price levels it should have aided foreign manufacturers in selling in our market. But relief in this direction proved impossible. Any separation of our price level from that of other countries was more than offset by new and higher tariffs.

Thus the rupture in our balance of international payments has not been mended. The healing process that might and should have taken place through increased merchandise imports was purposefully frustrated. Two things have happened chiefly as a result of our foreign trade policy: (1) It has snapped the bond that in the past tied the various price structures of the world together. Nearly all of the rest of the world has been

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†Observe the following figures. Roughly the Federal Reserve Banks are required by law to keep a "reserve ratio" of 40 percent. At the end of 1920 they had 43 percent; 1921, 70 percent; 1922, 73 percent; 1923, 75 percent; 1924, 73 percent; 1925, 69 percent; 1926, 71 percent; 1927, 66 percent; 1928, 63 percent; 1929, 70 percent; 1930, 74 percent; 1931, 67 percent; 1932, 63 percent. Statistical Abstract of the United States 1931 and Federal Reserve Bulletin, January, 1933.

forced to abandon the gold standard.* Premiums on gold became too high for them to support. (2) It has brought about widespread restrictions on trade, some of which have been retaliatory and some defensive in character. Many countries have been forced to use tariffs to protect the stability of their currency. Nationalism, too, has played an important part. Consequently, innumerable trade barriers have been raised against our commodity exports. Such is the impasse in which we find international trade at present.

Although inflowing gold was in part sterilized and merchandises were not accepted without a heavy tariff penalty, other important corrective influences appear to be at work. Given time they promise to relieve, in some measure, the acute scarcity of American dollars abroad. The more important ones are:

1. Migration of American industries to foreign countries.
2. An abrupt downward separation in terms of gold of the internal prices of other countries and ours due to depreciating currencies abroad.
3. The probability of tourist travel, an invisible import, increasing.
4. Foreign tariffs, import quotas, milling restrictions, and exchange controls which forcefully reduce our commodity exports. Each of these will be briefly examined.

Migration of American Industry to Foreign Countries

The American manufacturer who is dependent upon foreign outlets has one escape. If the goods that he makes cannot be sold abroad because of tariff barriers and the unavailability of American dollars in foreign countries, he can export his factory. Many of the most aggressive and efficiently managed industries have done exactly this; they have established factories abroad. Observe two characteristics of this migration of our industries to other countries: (1) The industries opening plants abroad are among the leaders in paying high wages, in using efficient methods of production and in having outstanding managerial personnel; (2) while this escape is open to the resourceful businessman, it is not open to the farmer. Obviously, it is impossible

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*The United States, too, has departed from the gold standard. One cannot foresee, now, what measures the United States Government will adopt upon monetary policy.

for Iowa farmers to establish branch farms in Germany and England to produce the lard that they formerly sold to those countries.

The Department of Cemmerce estimates that there were 524 American manufacturing establishments in Canada at the end of 1929 compared with 186 in 1918. Of the 453 American plants reported in Europe for 1929, only 82 were established before 1918. No branch factories were established in South America before 1920. Nine years later Latin America had 49 American branch factories and a total of 153 manufacturing plants. Our manufacturers had also established 64 plants in Africa and Asia and 42 in Australia and New Zealand. It is estimated that the total number of American plants abroad at present is over 2,000 and that they employ between 400,000 and 500,000 workers. By exporting the factory the need for exporting manufactured goods is decreased. Thus the demand for American dollars required to make payments to the United States is being lessened in foreign countries.

Tariffs are not the only factor that has motivated American industries to migrate. Those who invest in oil, mining and agricultural activities abroad are only taking advantage of productive natural resources. American-owned Mexican oil wells, Cuban sugar plantations and Canadian pulp and newsprint factories are of this nature. Costs of transportation, patent services and national sentiment have induced some to migrate. But it is safe to say that the ever growing tariff walls have unquestionably been the most influential factor.*

Our Tariff Act of 1930 went into effect in June; by September the Canadians had raised their tariffs. Observe what has happened as a result. During the period from September, 1930, to June, 1931, 74 additional American branch manufacturing companies were established in Canada; nor has the movement stopped. Canada has preferential tariffs with 29 countries under the British flag and favorable trade agreements with 43 others. These markets are, therefore, open to the American

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*" . . . the tariff is in the majority of cases the first obstacle that the American exporter is likely to consider in connection with his export trade plans. It is safe to state that in the case of Canada, where probably the greatest number of American branch plants are located, the tariff is the most influential factor. . . ." Senate Document, No. 258. American Branch Factories Abroad. 1931.

branch factories that move to Canada. But the payrolls also have been transferred across the line; Canada undoubtedly has profited thereby.

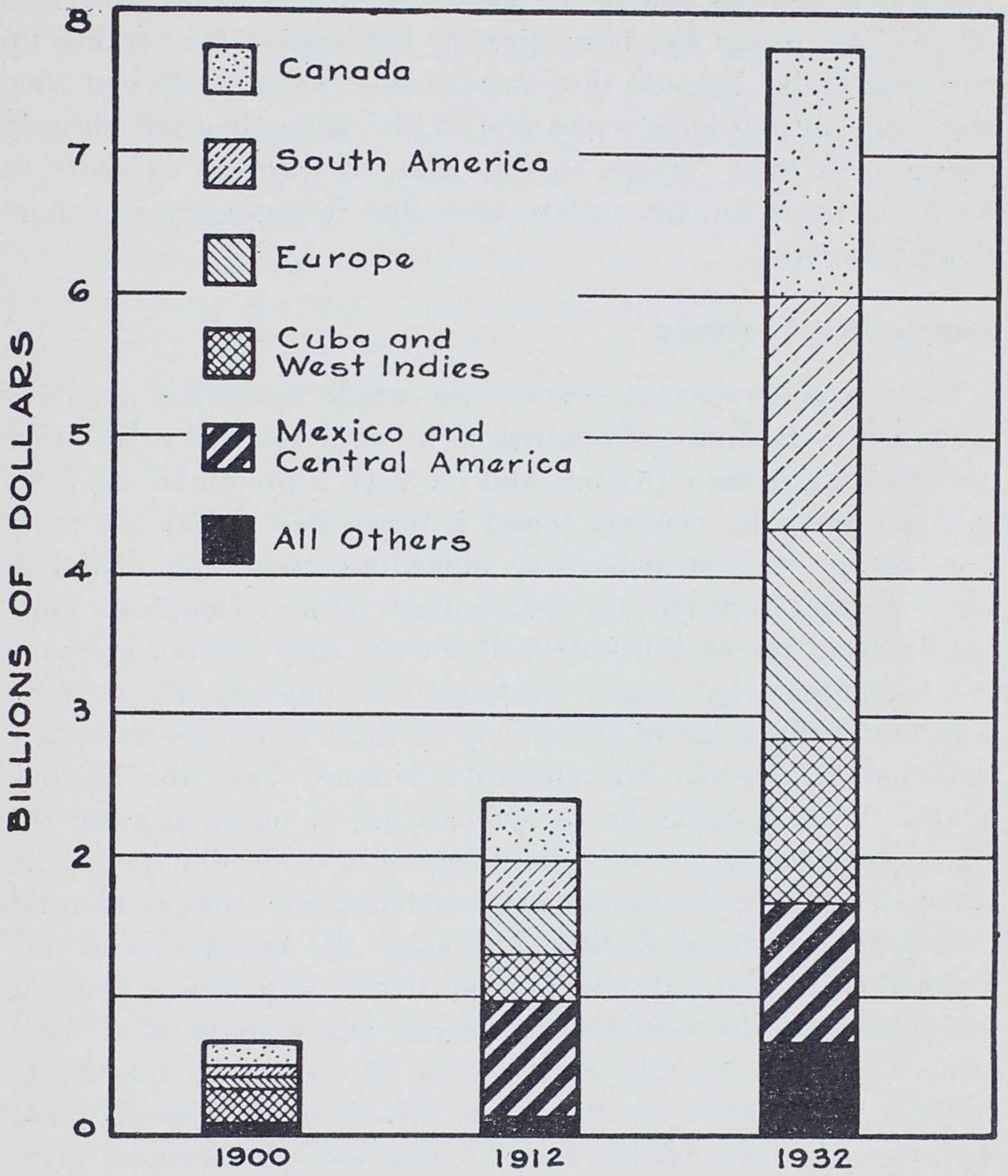

Fig. 20. The movement of American industries to foreign countries (based on American Direct Investments in Foreign Countries. Trade Information Bulletin No. 731, 1930, by Paul D. Dickens. Additional direct investments made since 1930 are based upon data given in Trade Information Bulletins No. 761 and 803).

It is of special interest to note what industries are leaving the United States. At the end of 1929 the manufacturers of agricultural and industrial machinery had 147 such plants; pharmaceutical products, 102; electric and telephone supplies, 98; automotive industry, 87; paints and varnishes, 32; and so on

down the line. The aritcles, according to the Department of Commerce, range from typewriters to mining machinery and from cough drops to automobiles. As is shown below these industries have been among the most effective in using American labor. This group has been directly responsible for forcing up our wage scale. Because they were among the most efficient they were able to pay high wages and at the same time sell cheaply enough to attract foreign buyers. But, the present, in order to maintain these foreign outlets, they find it necessary to export their factories.

Depreciated Currency

Outside of France, practically the whole world has departed from gold.* Because gold increased in value relative to all other commodities, it came to command too high a premium. As a result country after country found it impossible to pay the price necessary to stay on gold. The immediate causes for abandoning the gold standard are both numerous and complex. They are different for each country. But since they are not germane to our analysis, they may be omitted. The question arises: What determines the value of the money of those countries no longer redeemable in gold? The answer is simple. Take the English pound. Since its price is no longer fixed in terms of gold, the free play of supply and demand forces now determine its market value. The thing that happened to sterling was similar to what took place in wheat during and after the operations of the Farm Board. The Farm Board had fixed the domestic price of wheat and stood ready to buy or sell any amount at a fixed price. World economic events soon showed that the Farm Board's wheat price was too high. When it abandoned wheat the price of wheat quickly found a new level, determined principally by supply and demand forces. As in wheat, the foreign exchange markets at present establish the price of currencies no longer based on gold. Let us briefly examine the supply and demand factors, for instance, of British sterling.

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*The United States is at present off the international gold standard. The reasons for this action on the part of the Federal Government have not been external but chiefly internal. The collapse of the banking structure within the United States rather than the pressure of outward payments of dollars to foreign countries was responsible for the suspension of gold payments.

On the supply side of sterling are British importers and all other persons who want to part with sterling in order to get foreign currencies. This includes the British government and citizens who have borrowed American funds and who want dollars to pay interest and sinking funds. On the demand side are all buyers of British exports and all other people who want to exchange foreign currency for sterling. The market for British money today is like the market for wheat and corn. The price from day to day is no longer fixed but it fluctuates according to the dictates of supply and demand. What is true of sterling applies to every currency inconvertible into gold.

Note what happens. Since there is a pressure on outward payments in these countries, they are anxious to exchange their currency for dollars. But dollars are scarce. So they are obliged to bid up the price of dollars, that is, they must offer more of their money to induce those persons who have dollars to sell. Thus their currency depreciates relative to dollars. But this action corrects the balance of payments. It does this in two ways: (1) by checking the consumption of those goods that are imported, and (2) by stimulating exports.

A book published in England before England abandoned gold cost, we will say, $4.86. In France, or countries still on the gold standard, it can now be bought for a much reduced price, about $3.40. Before the United States went off the gold standard this trade advantage was true for our importers. Contrary to popular belief, however, we did not import more, relatively, than we did before the wholesale depreciation of foreign currencies.

The chief reason why depreciated currencies did not have any noticeable influence on our imports was because our tariffs are specific duties or a combination of specific and ad valorem duties, with customs collected on the basis of which proves to be the higher of the two. When prices decline a specific duty increases relative to the value of the commodity. Take sugar. When raw sugar sold for 4 cents a pound at the point of importation, the duty of 2 cents per pound was 50 percent of the price of sugar. But with Cuban sugar selling at 1.3 cents per pound at New York, as it did in 1931, the tariff penalty became 150 percent of the import price. This increase in tariffs tended to offset the advantage to importers created by the depreciation of currencies in exporting nations.

In the same way depreciated currencies tend to reduce the imports to that country—or the exports from a country with a stable currency. An American automobile that sold for $750 in England could be bought for 150 pounds sterling before England went off gold. When the sterling depreciated an Englishman had to pay many more pounds sterling for the same automobile —about 215 in February, 1933. Wages, salaries and other forms of income in England did not change materially so that it was much harder for the English to buy our goods.

This, of course, does not hold for imports coming from countries that also have had their currencies decline in value. The Danish krone is quoted at 58 percent of its par exchange value, while the pound is selling for 70 percent of its former gold value.* Accordingly, English consumers are not checked in buying Danish goods, instead it is slightly to their advantage to use commodities produced in Denmark. In all of the preceding analyses it has been assumed that internal prices—wages, salaries, taxes, contractual obligations involving capital investments and those commodities produced and consumed within the country—are more or less rigid in character.

Travel Abroad†

The downward separation of many foreign price levels away from our own may be expected, in normal times, to encourage Americans to travel abroad. Although the depression has sharply reduced tourist travel, it would seem that the cheaper costs in Europe and elsewhere are likely to act as a strong inducement for Americans to spend, when incomes again permit, their vacations abroad. As living costs become progressively cheaper in foreign countries, foreign travel may be expected to become increasingly popular. Services and goods bought by our tourists have the same influence as imports of merchandise; in fact, they are considered an invisible import. They help to correct our balance of payments. Tourist expenditures are already an important source of dollars to Europeans. "Thus, in true lordly

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*February, 1933.

†When this was written the dollar had not depreciated materially in the foreign exchanges.

fashion, may we eat and drink at the tables of our debtors much of what our system of trade restrictions make impossible for us to receive in more direct ways.''*

Trade Barriers Abroad

It is not necessary to stress the adverse effects of the many forms of trade restrictions enacted by those countries that heretofore have been our best customers. There are all manner of tariffs, quotas and milling restrictions. The most drastic has been the control of foreign exchanges. Viewed from the standpoint of the countries required to make heavy outward payments, import restrictions are for them rational correctives. In large measure, they have been forced to use them in self-defense. Because of the demand for outward payments, they must export more than they import. To accomplish this they have curtailed imports, the one factor within their control.

One example will suffice. Take Cuba, heavily in debt to us, a producer of one crop, sugar. Americans are among the heaviest consumers of sugar in the world; the Cubans normally use more lard per capita than any other people. We need their sugar and they want our lard. But what has happened?

Sugar is selling for less than 1 cent a pound in Cuba. Our tariff is 2 cents a pound. The Cuban government has retaliated by increasing the duty on lard to 7½ cents a pound, and as a result the selling price of lard in Cuba is three times the Chicago price. Observe the results. Cuba, which in the past has been our third largest consumer of lard, exceeded only by Great Britain and Germany, has reduced her lard purchases to less than one-third of normal. Cuba, which usually took around 80 million pounds, in 1932 bought from us only about 25 million pounds of lard.

Adjustments of this kind, although they tend to correct our balance of payments, that is, they bring the supply and demand of dollars in the outside world into an equilibrium, chiefly by decreasing our exports, fall, of course, heavily upon the American exporter, who is the most efficient of all domestic producers. The correctives now taking place bear with ruthless severity

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*Rogers, James Harvey. America Weighs Her Gold. p. 155.

upon those industries, agricultural and non-agricultural, that are dependent upon foreign outlets. As all of the preceding study shows, at present, knowingly or otherwise, the United States is carrying out a policy the consequences of which can be none other than to decrease exports.

SOME CONSEQUENCES OF LOWERING TARIFFS

In the preceding analysis we noted that the burden of the adjustments now taking place in our balance of payments fall chiefly upon the American producer dependent upon foreign outlets. The movement of exporting American factories, the effects of depreciated currencies and the influence of trade barriers abroad all bear adversely on the exporter. Since downward tariff adjustments are the principal alternative, the remainder of this study is devoted to an examination of the consequences that probably would arise from a scaling down of tariffs.

Tariffs are intended to check imports. It is the protective aspect and not the revenue-raising feature of tariffs that is commonly stressed in Congress. What reasons are there for a nation to check, in fact, often prohibit, imports? Is it better national policy gradually to reduce the tariff protection which is at present supporting certain industries and thus increase imports, or let the correctives now taking place contract the export industries to somewhat more nearly a domestic production basis?

Many arguments are advanced in favor of tariffs. The more important of these are as follows. Tariffs, it is claimed:

1. Help maintain the standard of living of a high-wage country against the competition of a low-wage country.

2. Provide a home market for the American farmers.

3. Protect labor and if used in an emergency reduce unemployment.

4. Protect the domestic producer against foreign dumping.

5. Aid in building up industries that are necessary for the national defense of a country.

6. Foster infant industry.

7. May be employed to facilitate internal economic adjustments.

Each of these arguments will be examined in turn. Although space does not permit a full discussion of all aspects of the tariff question, an endeavor is made to shaw in broad outlines how tariffs apply under present conditions to this country. The treatment, of necessity, is in general terms. Yet an attempt is made to distinguish between tariffs as emergency measures and tariffs as part of a long-time policy.

High Wages

It is evident that many factories could not pay the wages that they are now paying if the tariff on their products were sharply reduced. This fact leads many people to conclude that our high wages are to be attributed to tariffs. Stated in another way, they believe that inasmuch as the American scale of wages is higher than in foreign countries, cheap foreign goods must be kept out or else under competition wages will be forced down. To what extent is this assumption valid for our wage scale as a whole?

It is commonly recognized that the automobile industry has been one of the leaders in bringing about higher wages. But automobiles are not tariff-protected; they are exported. Our motor industry has captured markets the world over in direct competition with automobiles made with much cheaper labor in France, England and Germany. The explanation is simple. The American worker is more effective than the European. The reasons are several. Mass production, specialization of labor, superior managerial personnel and an abundance of resources all play a part. Take, for example, the experience of American branch factories abroad, many of which find the efficiency of European workers lower than that of the American. "An American automobile plant assembles a certain model in about 34 hours. . . . Its European subsidiary assembles the same model in 60 hours. . . ."*

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*Parker, Graham W. "American Branch Plants in Europe," Factory and Industrial Management. October, 1932.

Take an illustration in agriculture. The rice farmers of Louisiana, Arkansas and especially of Texas until recently were among the most prosperous in the entire South. They, too, are on an export basis. Their rice is sold to Europe, Canada, Latin America and even to the Orient. The chief exporting countries are India, Siam and Indo-China. At first thought it would seem impossible for us to compete with these countries for world markets in view of their unlimited supply of cheap labor and low standards of living. But, again, the explanation is not difficult. The average rice farmer in Texas harvests 10,000 bushels a year. He uses the most modern large scale machinery.† The Chinese farmer depends at best upon a water buffalo, a crude plow, a hoe, a sickle and a flail. Buck‡ found that it takes a Chinese farmer 945 man-hours to produce an acre of rice. Compare this with the 20 to 30 hours of man-labor that the American spends per acre. In reality, it will become increasingly difficult for the Chinese to hold his home market in the face of our low cost of production.

There is no doubt that wages are higher in the United States than in Europe. This is true not only for money wages but also for what wages buy, namely, real wages. This means that the American worker can buy more food, shelter and clothing for a day's work than can Europeans.

It is clear, however, that higher real wages cannot be handed over to workmen by the employers unless the workmen turn out a larger volume of products. If all Americans gainfully employed were no more effective in production than Europeans, wages could be no higher in the United States than in Europe. All of the income of a country has its origin in the output of its industries, agricultural and non-agricultural. High wages

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†It is of interest to note that Prof. Seaman A. Knapp, who left Iowa State College in 1885 to develop the rice industry of lower Louisiana, was the principal pioneer in bringing about the remarkable technical advancements which domestic rice growing has undergone. He introduced modern machine methods, thus revolutionizing rice production. He induced farmers from the north central states, especially from Iowa, who were familiar with large-scale machinery, to come to southwestern Louisiana and take up rice growing. These farmers lost no time in turning to machinery. As a result, whereas we formerly imported up to 5,000,000 bushels of rice a year over a tariff wall of 1¼ cents a pound, we now export as much as 25,000,000 bushels annually. See Howard W. Odum, "Southern Pioneers," for an account of the important role played by Seaman A. Knapp. The University of North Carolina Press, pp. 89-115. 1925.

‡Buck, John Lossing. "China's Farm Economy." University of Chicago Press. 1930.

cannot be paid unless the chief industries of a country are highly productive.

The high real wages, hence the high standard of living, of the United States rest fundamentally upon the greater productivity of the American farmer and worker.

Unprotected Industries

But not all industries are equally effective in converting work into articles that people want. The rice farmers and the workers in the automobile industry are especailly so. Labor is most productive in those industries that can sell cheaply enough to capture foreign markets and it is least productive in those fields that require prohibitive tariffs in order to operate. For example, labor used in producing wheat in Kansas with combines, tractors and other large-scale machinery is extremely effective, while labor used in growing sugar beets, at present, is comparatively ineffective. One is suited to the economy of the United States while the other apparently is not. The Kansas farmer who pays high American wages sells his wheat at world prices. He was, until recently, when policies beyond his control closed his foreign markets, producing at a profit. On the other hand, the sugar beet grower using cheap foreign labor, usually Mexican, has needed a high tariff so as to enable him to operate at all. Should the sugar beet industry be able to mechanize and thereby increase its labor productivity several fold, it, too, may become effective, be able to employ American workers, and hence become adapted to our economy.

The general effectiveness of the workers in the dominant industries of a country tend to establish the general wage scale.

In agriculture the tempo is set by such farmers as the hog, wheat, cotton, apple, orange and rice growers and in manufacturing by the automobile, tire and the machine-making industries. The fact that products such as lard, wheat and cotton; copper, tin plate and lumber; locomotives, cash registers, sewing machines, typewriters and printing machinery; tires, cigarettes and hosiery; and automobiles—all products of highly paid labor—are exported and are sold cheaply is proof that Americans have in them a comparative advantage.*

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*See preceding chapter.

There is a large class of industries that for sundry reasons do not come within the range of international trade. Bulky products like brick, tile and cement are necessarily made near the spot where they are used. Hay and coarse feed grains fall into this class. Then, too, perishable commodities like vegetables and milk are usually produced near their market. Houses, office buildings, manufacturing plants and roads are all made by domestic labor. Workers in these and similar occupations may or may not be more effective than foreign labor. It is estimated that of the 48,833,000 gainfully employed workers reported in the 1930 census about three-fourths were employed in unprotected industries. Not all of the remaining one-fourth of the workers benefit from the tariff. Many tariffs are clearly nominal. For example, most of the duties on agricultural commodities—to mention only a few, take barley, oats, corn, apples and potatoes—are practically meaningless. The same is true of many tariffs on manufactured articles. Most American workers and farmers are engaged in unprotected enterprises.

Protected Industries

Finally, there is another class of industries unable to produce unless they have the support of a tariff. Certain wool, cotton and silk textiles, fine lace, fancy embroidery, toys, dyestuffs and many other chemicals, artistic pottery, silverware, fancy leather goods, tin plate, steel rails and sugar—these are some of the articles in this group. After years of protection they are often no more in a position to meet foreign competition than when the protection was first given. Imports would quickly enter should tariffs be removed even though there is no obvious obstacle to their domestic production from the viewpoint of soil, climate, skill and of the organiztaion ability required. It is this group that finds high wages an insuperable barrier. They do not measure up to the average productivity set by the dominant industries. While such industries may appear to be suited to a country, they do not have the comparative advantage. Their difficulty often is not physical but economic. They cannot hold their own against the most effective and dominant industries.

High wages are more charistics of the unprotected than of the industries that are supported by tariffs. Observe the following table.

Of the 21 manufacturing industries that are listed in table XLII, 11 are always in the van when tariffs are being considered by Congress, while 10 of these are either indifferent or are actively opposed to tariffs. The average weekly wages for 1925-1929 of the employees on the payrolls of these plants were $27.69. They ranged from $39.03 for news and magazine publishing to $19.96 for cotton manufacturing plants located in the northern states.

It is significant to observe that of the first 10 paying highest wages, 8 are unprotected industries. Only two protected industries—iron and steel and chemicals—held a place among the high wage industries. The monopoly position of iron and steel in certain important products made possible by tariffs is worthy of notice. At the bottom of the list, with wages below $23 a week, all but one have high tariff protection. Observe that although they are given tariff support, they still are unable to pay as high wages as the more effective industries.

It is true that tariffs make it possible for some factories to employ more workers than would otherwise be possible. But their effect is to lower rather than to increase real wages. Custom duties help certain domestic producers. They make it possible for those domestic enterprises in which labor and capital are relatively ineffective to take man and funds from those fields in which labor and capital are more effective. In substance they therefore subsidize the less efficient producers of a country at the expense of the more capable, alert and efficient.

Tariffs protect the textile industry against the high wages which the efficient motor industry is able to pay. They make it possible for sugar beet growers to hire workers in the same area where the more effective corn and wheat farmers operate. Even so, up until now, the beet growers have been unable to pay high American wages.

The high standard of living of the United States—abundance of wholesome food, modern homes, time for education, automobiles and so on—rests fundamentally upon the effectiveness of the workers in the dominant industries. The effectiveness of workers in the dominant industries, in turn, depends upon the following factors. The first of these is land, commonly thought of as our natural resource. Deep black soil, favorable

TABLE XLII. AVERAGE WEEKLY EARNINGS OF ALL WAGE-EARNERS IN 21 MANUFACTURING INDUSTRIES AND THE APPROXIMATE TRIFF PROTECTION THESE INDUSTRIES RECEIVE

Rank	Class of manufacturing industry	Wages per week,[a] 1925-1929 average (dollars)	Relation of tariff to value of imports[b] (per cent)	Comment
1	Printing, news and magazine	39.03	nil	A domestic industry, practically unprotected by tariffs.
2	Iron and steel	34.71	40	Monopoly prices are made possible in tin plate and in steel rails because of tariffs. Industry also protected in pig iron at and near seaboard.[c]
3	Printing, book and job	32.02	nil to 20	Chiefly a domestic industry not supported by tariffs.
4	Automobile	31.80	nil to 10	Strictly on an export basis, unprotected.
5	Agricultural implement	30.32	nil	No tariffs, hence unprotected.
6	Foundries and machine shops	29.66	nil	On export basis, unprotected.
7	Rubber manufacturing	29.58	nil to 25	Rubber tires, footwear, gloves, caps, and numerous similar articles are exported. A few specialties are protected.
8	Paint and varnish	28.51	nil to 25	Industry on an export basis in nearly all pigments, paints and varnishes. Protected only in some specialties.
9	Chemical	28.22	30	Highly protected in most products. Some like sodium compounds on export basis.
10	Electrical manufacturing	28.17	nil to 35	Heavy exporters of electrical machinery and apparatus. Light bulbs protected.
11	Paper and pulp	27.46	10 to 25	Large imports of paper base stock.
12	Furniture	25.93	38	Imported and exported. Not enough information to determine extent of protection.
13	Meat packing	25.64	nil	A domestic industry, chiefly unprotected.
14	Lumber	25.62	15	Both exported and imported. Protected in some woods.
15	Paper products	24.78	25 to 35	Information not available.
16	Leather tanning and finishing	24.46	15 to 30	Protected by tariffs chiefly in those leather goods requiring considerable hand work. Leather footwear, belting, harness and suitcases are exported.
17	Silk manufacturing	22.67	60	Fancy broad silk highly protected. Ordinary broad silk less dependent upon tariff support. Full fashion silk hosiery are exported in quantity.[d]
18	Wool manufacturing	22.00	73	Definitely dependent upon tariff protection. Industry in a position of comparative disadvantage.[e]
19	Boot and shoe	21.92	20	Protection limited to those shoes and boots requiring much hand work.
20	Hosiery and knit goods	21.07	60	Protected except for machine-made hosiery.
21	Cotton manufacturing[f]	19.96	48	Fine goods dependent upon tariff support. This part of industry ineffective compared with foreign cotton mills.[g]
	All industries	27.69		

[a]"Wages in the United States, 1914-1930." National Industrial Conference Board. New York. 1931. Based on reports of 1,444 manufacturing industries employing about 840,000 workers.

[b]Estimates based upon the ad valorem equivalent for 1930-31 as reported by the U. S. Tariff Commission in "Relation of Duties to Value of Imports." Misc. Series, 1932; and in "Comparison of Rates of Duties in the Tariff Act of 1930 and in the Tariff Act of 1922." 1930.

[c]Taussig, F. W. "Some Aspects of the Tariff Question." 3rd enlarged edition continued to 1930 with the cooperation of H. D. White. Harvard University Press, Cambridge. Chap. XXIII. 1931.

[d]Taussig. Op. cit. p. 418.

[e]Taussig. Op. cit. Chap. XXVIII.

[f]Includes only the northern cotton manufacturing plants, 29 in all.

[g]Taussig. Op. cit. p. 463.

climate, minerals and water power—these are aspects of land, the final source of all materials and energy. The second includes the economic technique of a people. It is made up of the accumulated material equipment. Here are included tools, trac-

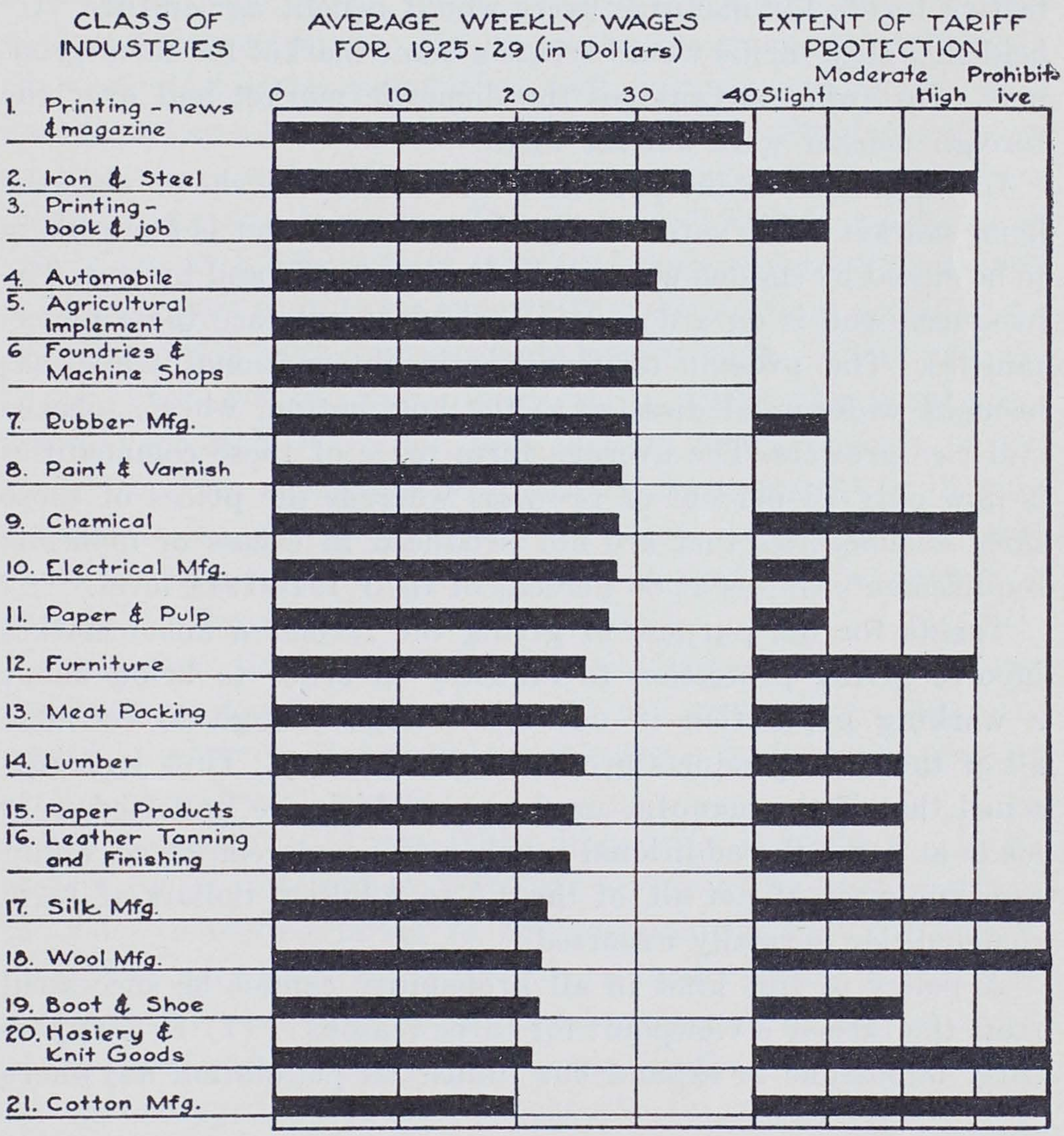

Fig. 21. A comparison of the average weekly wages of workers in the principal classes of manufacturing industries with the approximate extent of tariff protection each class of manufacturing industry receives.

tors, combines—all machines—railways and industrial plants. Then there is the scientific knowledge and technical efficiency of the people. This final factor, perhaps the most important of all, also takes in the qualities of the workers themselves. These involve the industry, thrift, stability and health of the workers. To these qualities must be added the size of the population relative to natural resources. With a favorable combination of all these factors no power on earth can keep a people from enjoying a high standard of living.

Home Market

Henry Clay in his famous speech of 1824 declared that protective tariffs for manufacturers would benefit agriculture. He held that such tariffs would create a home market for farm products. Just what advantages the domestic market had over the foreign market were not set forth.

In times such as the present it can readily be shown that the home market is the surer outlet. A foreign market is more likely to be closed by sudden changes in foreign tariffs and by war. The producer who is on a domestic basis does not face these uncertainties. The present tariff crisis in international trade has brought widespread disaster to the hog, cotton, wheat, tobacco and rice growers. The average farm price of these commodities is now only 43 percent of pre-war, whereas the prices of those farm commodities that are not produced in excess of domestic requirements stands at 80 percent of their 1910-1914 level.*

Tariffs for the purpose of giving the farmer a home market involve giving protection to industry in order to bring about a working population in our cities large enough to consume all of the farm products grown in this country. Thus it is reasoned that if the manufactured goods which are imported were made at home the additional number of people employed would consume most, if not all, of the 1.5 to 2 billion dollars of farm commodities normally exported.

A policy of this kind in all probability cannot be successful from the farmer's viewpoint for three reasons: (1) It is apparently impossible to expand our industrial population anywhere

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*See fig. 19 in preceding chapter.

near enough to absorb all of the food and raw materials produced on our farms; (2) industrial tariffs always tend to increase the cost of living to farm people, hence are a direct burden on agriculture, and (3) the protected goods absorb, because of their higher price, a greater share of the consumer's income, thus leaving him less with which to buy bread and meat.

Historically, the policy enunciated by Henry Clay more than a century ago has proved for American agriculture, especially for the Mississippi Valley, a direct burden rather than an indirect benefit.

The American farmer continues to be inescapably dependent upon foreign buying. The home market is, in spite of the phenomenal growth of our cities, too small to absorb the farmer's food and raw materials. Nor is there even a remote probability that our industrial population will furnish during the next decade or two a home market sufficiently large. The farmer must continue to export or face ruinously low prices that result from glutted domestic markets. The crop and animal products of nearly one-fifth of our total crop land were exported from 1922 to 1928. Since then these exports have been piling up until we are confronted with unprecedented carryovers. Under the existing price system, facts force us to accept the conclusion, whether we wish it or not, that farmers must continue to sell abroad or face wholesale liquidation. Temporarily, with governmental aid, production may, of course, be checked or even curtailed to something approaching a domestic basis. But as a long-time policy, it is very problematical.

Protection did hasten the industrialization of America, but the home market for agriculture did not materialize. The prosperity or poverty of American agriculture continues to depend chiefly upon world prices.

But protection did one thing frequently overlooked. It set certain forces into motion that have slowly and silently lowered the relative buying power of the commodities that the farmer sells. Not only have these forces practically closed his foreign markets, but they have, in addition, increased the cost of many of the goods that he buys. Thus gradually there has occurred an ever widening discrepancy between the things the farmer sold and the articles he bought.

We placed a high tariff on dyestuffs and textiles. This kept the German and English supplies out and enabled domestic manufacturers to produce these goods. This gave rise to a working population which in turn furnished a demand for farm produce. Observe, however, what happened on the other side of the account.

Prior to the enactment of these tariffs, imported dyestuffs and textiles gave rise to purchasing power abroad; hence, they provided payments for foodstuffs that were exported. By shutting out these commodities we, therefore, reduced our ability to export. At this point it would appear that the home market that arose, at best, simply replaced the foreign market that was lost. In fact, it can be shown that in this replacement of markets the total demand for farm produce was actually decreased. Society was made poorer. In the United States both dyestuffs and textiles* are manufactured at a greater cost than in Germany and England, and in Europe they are now growing wheat on sandy and infertile soil and producing pork and lard at cost much higher than in the Corn Belt. Equally important is the fact that the price of clothing made from domestically manufactured dyestuffs and textiles was raised to the farmer. Protection is always a double-edged sword cutting simultaneously in two directions. It raises the farmer's cost of living and it reduces his income. But usually it acts so slowly that the effects are not obvious until serious consequences have occurred.

> To employ tariffs to force consumers to "Buy American" only shifts the burden of the depression even more upon the producers dependent upon foreign markets. Long before it is possible for dollars spent for American linens, assuming that a tariff has shut out Irish linens, to find their way to American workers in new factories or increased employment, the price of farm products will be further depressed. Foreign buyers quickly reduce their purchases of raw materials. Cables work faster than payrolls. Raw materials are more sensitive to changes in demand than wages. To this must be

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*Most textiles can be manufactured more cheaply abroad than in the United States. Rayon and certain machine-made hosiery are notable exceptions. Observe the comments given in table XLII.

added the likelihood of retaliation. It would simply be another battle in the international warfare of tariffs with the producers of lard, cotton and wheat in "no man's land."

Unemployment

It is said that tariffs are a factor in keeping work at home and thereby reducing unemployment. This argument has strong popular appeal. There is no doubt that a country can reduce the volume of its imports and thereby create employment at home. Goods that are not imported, if they are to be had at all, must be made domestically. This obviously is a demand for labor.

But is the demand thus created an additional demand for labor? On the surface it may appear that there actually is more income. The same error is involved, however, that was pointed out in the home-market argument.

Thus, if we kept out rubber boots that Czechoslovakia is able to lay down in our market at less cost than our own manufacturers, more American workers would be put to work making rubber boots. This action would throw out of work Czechoslovakian laborers who in turn would buy less wheat, bread and meat. Potatoes and black bread is the diet to which they then are forced. As before, by excluding imports we reduce exports of equal value. By giving the rubber boot market to some domestic manufacturer we have deprived some domestic exporter, that is, some American farmer, of his lard and wheat market abroad. No additional employment is created. The farmer, one of our most efficient producers, lost his job while the bootmaker, less suited to the economy of the United States, was given a job.

No person would deny that a sudden downward adjustment of tariffs would throw many wage earners out of employment. Once a country has embarked upon a protective policy it cannot by one stroke remove tariffs without causing serious dislocations. Labor and capital cannot shift readily. Likewise, it is equally true that if all imports were suddenly stopped—the aim of the "Buy American" sponsors—it would cause dislocations even more serious than those already existing within the export industries.

J. M. Keynes, noted English economist, wrote in 1923, "The one thing that protection cannot do is to cure unemployment. If Protectionists merely mean that under their system men will have to sweat and labor more, I grant their case. By cutting off imports we might increase the aggregate of work; but we should be diminishing the aggregate of wages. . . . Imports are receipts and exports are payments. How, as a nation, can we expect to better ourselves by diminishing our receipts? Is there anything that a tariff could do, which an earthquake could not do better?"

Dumping

A tariff against dumping is nothing more than an attempt to enforce fair competition. It prevents short time cut-throat and unfair competition carried on to crush a competitor after which prices are raised to a higher level than formerly. Although tariffs are a clumsy device, until better remedies are available, it appears wise to use them to protect the import trade from the demoralizing practices of dumping.

The principal forms of dumping may be described as sporadic dumping of occasional overstocks, predatory dumping, monopoly dumping, and state-aided dumping. To these may be added "exchange dumping." Undue imports caused by depreciated currency come under this class.

To deal with these by tariffs is far from simple and is exposed to many risks. It is altogether too easy for an inefficient, high cost group of producers to convince their congressmen that they are facing dumping from abroad.

Military Necessity

No nation can afford to become wholly dependent upon foreign countries for its supply of war materials. But to carry on a modern war the list of essential materials is indeed long. Self-sufficiency, it is asserted by the most nationalistic, is therefore desirable. Defense, they declare, is more important than opulence.

Enough diversification of industry to prevent paralysis and to assure the necessities of life in time of war is undoubtedly de-

sirable. The argument is not economic but wholly political. The price of tariffs to attain these ends should be clearly recognized as a cost of preparedness. They are a tax on the standard of living of a nation similar to any other tax the revenue of which is to build battleships, bombs and machine guns. How much a country should pay for military preparedness is chiefly a socio-political problem. It is seldom, if ever, considered on its economic merits.

Infant Industries

If a nation has infant industries that are suitable to the economy of the country they may very properly be accorded protection until they reach maturity. Children should be protected and cared for until they reach maturity before they are forced to compete with mature people. Economists have generally admitted that the analogy holds for infant industries. Many of the early tariffs of this country may be justified on the grounds that they encouraged and hastened the industrialization of America.

Sight, however, should not be lost of the fact that most of our older industries can no longer, by any flight of imagination, be classified as infants. There is a real basis for the fear that the usual relationship between parent and child are reversed and that by lobbying and logrolling the child today dictates his own tariff terms to the parental authority.

Facilitate Economic Adjustments

When new technique, the development of new resources in foreign countries or improved transport facilities subject a domestic industry to sudden and violent dislocations, tariffs may be used to break the fall of prices and render the movement of capital and labor to other enterprises easier. For instance, the rapid exploitation of the American prairies following the Civil War flooded Europe with cheap wheat. The English farmer could not meet this competition and for fully a quarter of a century England experienced a severe agricultural depression. Since England was a wheat importing country a judicious application of protection would have rendered the farmer's plight

in England less severe. In adjustments of this character tariffs may well be employed to mitigate disaster and alleviate distress.

DESIRABILITY OF TARIFF ADJUSTMENTS

It cannot be emphasized too strongly that the burden of the adjustments now taking place in international trade falls chiefly on the producers dependent upon foreign outlets. The correctives that are mending the fabric of foreign trade bear with ruthless severity upon American agriculture. Farm prices show the consequences.

The American manufacturer has one escape. He can export his factory. The more efficient and resourceful businessmen, moreover, are availing themselves of this escape. About 2,000 American plants have been established abroad. Obviously, this alternative is not open to hog, cotton and wheat farmers.

Another corrective is the influence of the depreciated currencies of other countries. They have resulted in a sharp downward separation of their internal prices away from ours in terms of gold. Such a separation of price levels tends to check our exports and stimulate imports. But the corrective influence of depreciated currencies, too, has fallen chiefly on the exporter. It has become harder for him to sell abroad as a consequence. Imports have been less affected because most tariffs are specific duties, the protection of which increases relative to the value of the article imported when prices decline.

As the cost of living abroad declines, more Americans are likely to spend their vacations in Europe. The expenditures of our tourists is an invisible import and tends to relieve the scarcity of dollars abroad. Although this item may remain large and even expand when better times prevail, for the immediate future tourist expenditures may be expected to decrease. Observe, however, that of the several important adjustments taking place this one alone does not burden the American producer dependent upon foreign outlets. In fact, an increase in tourist expenditures has the same effect as increasing imports.

The influences of trade barriers abroad are self-evident. Import quotas, milling restrictions, import monopolies, exchange controls and all manner of tariffs—all of these are designed, primarily, to do one thing, namely, decrease our exports. To the

extent that they are successful in reducing our exports they tend to correct our balance of payments.

The movement of American industries to foreign countries, depreciated currencies, tourist expenditures and trade barriers abroad are adjustments, if left to take their course, that will in due time reduce the exports of commodities from the United States enough to balance our international payments to fit our creditor position. Meanwhile, ruinously low prices are forced upon agriculture and bankruptcy becomes well-nigh universal. At the same time our debtors abroad—foreign governments, municipalities, corporations and citizens using American capital—are forced to default. Is such a cure desirable?

But there is an alternative—increase imports. To bring this about involves a gradual, yet definite, scaling down of our tariff wall. A downward adjustment of tariffs would tend to throw some of the burden of reestablishing foreign trade upon protected industries. Some business dislocations would result. Manufacturers at present supported by high and often prohibitive tariffs would have to meet foreign competition or shift into fields better suited to the economy of the United States.

From a long trend national viewpoint this would be a desirable adjustment. Lowering tariffs to permit enough of an increase in imports of diversified manufactures to make it possible for our farmers and export manufacturers to hold their foreign markets would do two things: (1) Maintain those industries that have in their production the greatest comparative advantage and (2) reduce those least effective in using American workers and resources. The ultimate result would be to raise the standard of living of the people of the Unitd States.

Prompt reduction of tariffs and the moderation of other trade barriers is highly desirable. This action is basic to the reestablishment of our export trade, which, in turn, is basic to the restoration of the fundamental balance in our national economic life. Farmers and other producers of raw materials must first receive an adequate price for their products before they are able to buy the products of our factories in adequate volume to restore business activity and employment in the cities.

But desirable as it may be to lower tariffs it should be realized that this cannot be done in 1 or 2 years. Even under the most

favorable circumstances it will probably take from 5 to 10 years to effect a substantial reduction of prevailing domestic and foreign trade barriers. Then, too, serious dislocations would result if all tariffs were suddenly removed or even sharply reduced. There are many reasons why the process should be carried out gradually, the chief one being that it would give the tariff supported industries an opportunity to shift to more productive enterprises. Meanwhile, what will happen to the American producer who has lost his foreign market? Until our foreign trade is reestablished, that is, until imports are increased, exports must be reduced. Therefore, temporarily at least, some plan to facilitate the orderly retreat* of our cotton, wheat, hog and tobacco producers is not only desirable but in all probability essential. While our national trade poilcies are being adjusted to fit our creditor position, sight should not be lost of the fact that the American farmer is carrying most of the burden of the adjustments now taking place; hence, they are entitled to first consideration in any relief program.

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*Among the various proposals designed to accomplish this end are the domestic allotment plans, governmental reforestation program, and measures whereby the government leases land in order to withdraw it, at least temporarily, out of cultivation.

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